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From: Commanding Officer, U. S. Naval Ammunition Depot, Crane, Indiana
To: National Aeronautics and Space Administration, Goddard Space Flight Center, Electrochemical Power Sources Section (716.2), Space Power Technology Branch, Greenbelt, Maryland 20771

Subj: Monthly Progress Report on National Aeronautics and Space Administration Space Cell Test Program; submission of

Encl: (1) Monthly Progress Report as of 30 September 1966 (3 copies)

1. The progress report for National Aeronautics and Space Administration purchase order W11,252B on the space cell test program is submitted as enclosure (1).

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MONTHLY PROGRESS REPORT THROUGH 30 SEPTEMBER 1966

LIFE CYCLE TESTS

TOTAL NUMBER OF PACKS IN PROGRAM: 175

SECTION I

1. Status of original Cycling Program: The cycling program has included cells from the following manufacturers; General Electric Company (G.E.), Gould-National Batteries, Inc. (Gould), Sonotone Corporation (Sonotone), and Gulton Industries, Inc. (Gulton).

TOTAL NUMBER OF PACKS IN ORIGINAL PROGRAM: 84

	Total Number of Packs Cycled To Date	Total Number of Packs Cycling Failed	Cells Failed* Since Last Total Report To Date
NICKEL-CADMIUM (10-cell packs)			
G.E. 3.0 a.h.	12	5	7
Gould 3.5 a.h.	12	3	9
Sonotone 5.0 a.h.	12	5	7
Gulton 6.0 a.h.	12	2	10
TOTAL	48	15	33
NICKEL-CADMIUM (5-cell packs)			
G.E. 12 a.h.	12	6	6
Gulton 20 a.h.	12	2	10
Gould 20 a.h.	12	3	9
TOTAL	36	11	25

*All failure analysis results are cumulative. Total pack failures are shown on pages 11 through 38; partial pack failures on pages 39 through 47.

2. Test Parameters:

a. General Cycling Program:

(1) Ambient Temperature:

(a) 0° C.

(b) 25° C.

(c) 40° C.

(2) Voltage limits per pack on charge:

(a) 1.55 ± 0.03 volts per cell at 0° C.

(b) 1.49 ± 0.03 volts per cell at 25° C.

Enclosure (1)

(c) 1.45 ± 0.03 volts per cell at $40^\circ C$.

(3) Depth of Discharge:

(a) 90-minute and 3-hour orbits:

1. 15 percent and 25 percent at $0^\circ C$.
2. 25 percent and 40 percent at $25^\circ C$.
3. 15 percent and 25 percent at $40^\circ C$.

(4) Orbit Time:

(a) 90 minutes--30-minute discharge and 60-minute charge.

(b) 3 hours--30-minute discharge and 150-minute charge.

3. Capacity Tests:

a. Before cycling, each pack was given a capacity test at its respective cycling temperature. This check consisted on a c/10 charge for 16 hours followed by a c/2 discharge to 1.0 volt per cell average. After each 88 days of cycling, each pack was discharged immediately after the end of the regular cycle charge period, at the c/2 rate to 1.0 volt per cell average. The pack was then recharged at the c/10 rate for 16 hours and discharged at the c/2 rate to 1.0 volt per cell average. The pack was then recharged at the c/10 rate for 48 hours, voltage limited to the cycle limits. Data of capacity tests is tabulated on pages 61 through 68.

4. Data:

a. Under normal operation, complete data is scheduled to be recorded every 32 cycles on the 90-minute and 3-hour packs.

b. The attached data sheets give end of discharge and end of charge voltage readings for each cell on each cycle recorded.

SECTION II

1. Status of additions to Cycling Program: The cycling program has included cells from the following manufacturers; General Electric Company (G.E.), Sonotone Corporation (Sonotone), Yardney Electric Corporation (Yardney), Gulton Industries, Inc. (Gulton), Delco-Remy (Delco) and The Electric Storage Battery Company (E.S.B.).

TOTAL NUMBER OF PACKS ADDED TO THE PROGRAM: 91

	Total Number of Packs Cycled To Date	Total Number of Packs Cycling Failed	Cells Failed* Since Last Report	Cells Failed* Total To Date
NICKEL-CADMIUM (10-cell packs)				
Gulton 3.6 a.h. SHERFEEY	1	0	1	0 8
Gulton 3.6 a.h. COULOMETER	1	1	0	0 1
TOTAL	2	1	1	0 9
NICKEL-CADMIUM (5-cell packs)				
G.E. 5.0 a.h. NIMBUS	6	5	1	0 8
G.E. 12 a.h.	1	0	1	0 5
G.E. 12 a.h. 3rd Electrode	4	2	2	0 2
G.E. & Gulton 6.0 a.h. COUL	1	1	0	3 8
Sonotone 3.0 a.h.	6	4	2	1 8
Sonotone 5.0 a.h. COULOMETER	1	1	0	0 0
Sonotone 5.0 a.h. STABISTOR	8	1	7	1 25
Gulton 1.25 a.h.	4	4	0	0 1
Gulton 4.0 a.h. COMMERCIAL	6	4	2	0 7
Gulton 5.0 a.h. NIMBUS	6	5	1	0 5
Gulton 5.6 a.h. FOLDED SEAL	4	4	0	1 3
Gulton 5.6 a.h. NONFOLDED SEAL	4	3	1	0 4
Gulton 6.0 a.h.	1	0	1	0 3
Gulton 6.0 a.h. HSI	3	1	2	0 6
Gulton 6.0 a.h. 3rd Electrode	6	3	3	0 11
Gulton 12 a.h.	6	4	2	0 8
Gulton 50 a.h.	2	0	2	0 6
TOTAL	69	42	27	6 110
SILVER-CADMIUM (10-cell packs)				
Yardney 12 a.h.	2	0	2	0 16
Yardney 3.0 a.h.	1	1	0	0 0
TOTAL	3	1	2	0 16
SILVER-CADMIUM (5-cell packs)				
Yardney 5.0 a.h.	6	2	4	0 12
E.S.B. 8.0 a.h.	1	1	0	0 0
Yardney 12 a.h.	3	2	1	0 2
TOTAL	10	5	5	0 14

*All failure analysis results are cumulative. Pack failures are shown on pages 48 through 60.

	Total Number of Packs Cycled	Total Number of Packs To Date Cycling Failed	Cells Failed* Since Last Report	Total Cells Failed* To Date
SILVER-ZINC (10-cell packs)				
Yardney 12 a.h.	1	0	1	0
Delco 25 a.h.	1	0	1	0
TOTAL	2	0	2	0
				11
SILVER-ZINC (5-cell packs)				
Delco 25 a.h.	4	0	4	1
Delco 40 a.h.	1	0	1	0
TOTAL	5	0	5	1
				13

*All failure analysis results are cumulative. Pack failures are shown on pages 48 through 60.

2. Test Parameters:

a. General Nickel-Cadmium Cycling Program:

(1) Ambient Temperature:

(a) 0° C.

(b) 25° C.

(c) 40° C.

(2) Voltage limits per pack on charge:

(a) 1.55 ± 0.03 volts per cell at 0° C.

(b) 1.49 ± 0.03 volts per cell at 25° C.

(c) 1.45 ± 0.03 volts per cell at 40° C.

(3) Depth of Discharge:

(a) 90-minute and 3-hour orbits:

1. 15 percent and 25 percent at 0° C.

2. 25 percent and 40 percent at 25° C.

3. 15 percent and 25 percent at 40° C.

(b) 24-hour orbits:

1. 50 percent at 25° C and 40° C.

(4) Orbit Times:

- (a) 90 minutes--30-minute discharge and 60-minute charge.
- (b) 3 hours--30-minute discharge and 150-minute charge.
- (c) 24 hours--1-hour discharge and 23-hour charge.

b. Nimbus Packs:

(1) Ambient Temperature:

- (a) 0° C.
- (b) 25° C.
- (c) 40° C.

(2) Voltage limit per pack on charge: 1.49 ± 0.03 volts per cell at each temperature.

(3) Depth of Discharge:

- (a) 15 percent and 25 percent at 0° C.
- (b) 25 percent and 40 percent at 25° C.
- (c) 15 percent and 25 percent at 40° C.

(4) Orbit Time: 90-minutes--30-minute discharge and 60-minute charge.

c. Third Electrode Packs (Gulton):

(1) Ambient Temperatures:

- (a) 0° C.
- (b) 25° C.
- (c) 40° C.

(2) Voltage limits per pack on charge: None. Limit is controlled by the third electrode voltage:

- (a) 150 millivolts at 0° C.
- (b) 300 millivolts at 25° C.
- (c) 300 millivolts at 40° C.

(3) Depth of Discharge:

- (a) 25 percent and 40 percent at 0° C.
- (b) 25 percent and 40 percent at 25° C.
- (c) 15 percent and 25 percent at 40° C.

(4) Orbit Time: 90 minutes--30-minute discharge and 60-minute charge.

d. Third Electrode Packs (General Electric):

(1) Ambient Temperatures:

- (a) 0° C.
- (b) 25° C.
- (c) 40° C.

(2) Voltage limit per pack on charge: None. Limit is controlled by the third electrode voltage; 400 millivolts at all temperatures.

(3) Depth of Discharge:

- (a) 25 percent and 40 percent at 0° C.
- (b) 25 percent and 40 percent at 25° C.
- (c) 15 percent and 25 percent at 40° C.

(4) Orbit Time: 90 minutes--30-minute discharge and 60-minute charge.

e. Stabistor Packs:

(1) Ambient Temperatures:

- (a) -30° C.
- (b) 0° C.
- (c) 25° C.
- (d) 40° C.

(2) Voltage limits per pack on charge: None. Stabistor controls cell voltage.

(3) Depth of Discharge:

- (a) 25 percent and 40 percent at -30° C.
- (b) 25 percent and 40 percent at 0° C.

(c) 25 percent and 40 percent at 25° C.

(d) 15 percent and 25 percent at 40° C.

(4) Orbit Time: 90 minutes--30-minute discharge and 60-minute charge.

f. Coulometer Packs:

(1) Ambient Temperature: 25° C.

(2) Voltage limit per pack on charge: None. Coulometer controls cell voltage.

(3) Depth of Discharge:

(a) 30 percent for 5 cells (Sonotone 5 a.h.)--Coulometer built by Goddard Space Flight Center.

(b) 40 percent--coulometer built by G.E. (replaced by Gulton coul.)

1. 10 cells (Gulton 3.6 a.h.)

2. 11 cells (6 Gulton 6.0 a.h. and 5 G.E. 6.0 a.h.)

(4) Orbit Time: 90 minutes--30-minute discharge and 60-minute charge.

g. Sherfey Cycling Packs:

(1) Ambient Temperature: 25° C.

(2) Voltage limit per pack on charge: None. Pack cycled in the partially discharged state.

(3) Depth of Discharge: 40 percent at 25° C.

(4) Orbit Time: 90 minutes--30-minute discharge and 60-minute charge.

(5) Cell Type: Gulton .6 a.h.

(6) This type of cycling starts with the cells in a completely discharged condition. Each cycle consists of a charge of 60 percent of the cell's rated capacity followed by a discharge of 40 percent of the cell's rated capacity. Upon completion of each fifth cycle, the cells are discharged through a resistor for 90 minutes to return the cells to the completely discharged condition for the start of the next sequence of five cycles. In this manner, the cells operate below the 100 percent charged state much of the time thereby preventing overcharging and buildup of excessive gas pressure.

h. Neoprene-Seal Packs: (Folded and Nonfolded)

(1) Ambient Temperatures:

(a) -20° C.

(b) 0° C.

(c) 25° C.

(d) 40° C.

(2) Voltage limits per pack on charge:

(a) 1.55 ± 0.03 volts per cell at -20° C.

(b) 1.55 ± 0.03 volts per cell at 0° C.

(c) 1.49 ± 0.03 volts per cell at 25° C.

(d) 1.45 ± 0.03 volts per cell at 40° C.

(3) Depth of Discharge: 25 percent at all temperature.

(4) Orbit Times: 90 minutes--30-minute discharge and 60-minute charge.

i. Silver-Cadmium Packs:

(1) Ambient Temperatures:

(a) 90-minute orbit:

(1) -20° C.

(2) 0° C.

(3) 25° C.

(b) 24-hour orbit:

(1) 0° C.

(2) 25° C.

(3) 40° C.

(2) Voltage limits per pack on charge:

(a) 90-minute orbit:

(1) 1.60 ± 0.03 volts per cell at -20° C.

(2) 1.58 ± 0.03 volts per cell at 0° C.

(3) 1.55 ± 0.03 volts per cell at 25° C.

(b) 24-hour orbits: 1.50 ± 0.03 volts per cell at 0° C.,
 25° C., and 40° C.

(3) Depth of Discharge:

(a) 90-minute orbit: 25 percent at all temperatures.

(b) 24-hour orbit:

(1) 20 percent and 50 percent at 0° C.

(2) 20 percent at 25° C.

(3) 20 percent and 50 percent at 40° C.

(4) Orbit Time:

(a) 90-minute--30-minute discharge and 60-minute charge.

(b) 24-hours--1-hour discharge and 23-hour charge.

j. Silver-Minc Packs:

(1) Ambient Temperature: 25° C.

(2) Voltage limit per pack on charge: 1.97 ± 0.03 volts per cell
at 25° C.

(3) Depth of Discharge:

(a) 5-hour orbit: 40 percent at 25° C.

(b) 24-hour orbit: 25 percent and 40 percent at 25° C.

(4) Orbit Times:

(a) 5 hours--30-minute discharge and 150-minute charge.

(b) 24 hours--1-hour discharge and 23-hour charge.

k. Two Step Charge Regulator:

(1) Ambient Temperature: 25° C.

(2) Voltage limit per pack on charge:

(a) Upper Voltage Limit: 1.97 ± 0.03 volts per cell.

(b) Low Current Limit: 0.35 amps.

(c) Overcharge Voltage Limit: 1.87 ± 0.03 volts per cell.

(3) Depth of Discharge: 40 percent at 25° C.

(4) Orbit Time: 24-hour--1-hour discharge and 23-hour charge.

(5) Cell Type: Delco-Remy 25 a.h.

(6) When silver-cadmium and silver-zinc cells are put on a long charge period with only a voltage limit, the cells begin to unbalance when the pack goes into overcharge. A new method of charging cells of these types was developed at Goddard Space Flight Center. The cell pack is charged until it reaches the pack upper voltage limit. At this time, the charge current is reduced to maintain this voltage limit. When the charge current decreases to 350 milliamperes, the on-charge voltage limit is then reduced to the lower pack voltage limit which is equal to the open circuit voltage of the cell pack. In this method, the pack receives no more charge until there is a sufficient drop in the pack voltage to reset the pack voltage limit to the upper value. This method prevents the cells from becoming unbalanced during long charge periods.

1. Silver-Cadmium Packs (Third Electorde):

(1) Ambient Temperature: 25° C.

(2) Voltage limit per pack on charge: 1.51 ± 0.03 volts per cell.

(3) Depth of Discharge: 16.7%

(4) Orbit Times: 8-hour--1-hour discharge and 7-hour charge.

3. Capacity Tests:

a. Before cycling, each pack was given a capacity test at its respective cycling temperature. This check consisted of a c/10 charge for 16 hours followed by a c/2 discharge to 1.0 volt per cell average. After each 88 days of cycling, each pack was discharged immediately after the end of the regular cycle charge period, at the c/2 rate to 1.0 volt per cell average. The pack was then recharged at the c/10 rate for 16 hours and discharged at the c/2 rate to 1.0 volt per cell average. The pack was then recharged at the c/10 rate for 48 hours, voltage limited to the cycle limits. Data of capacity tests is tabulated on pages 68 through 74.

4. Data:

a. Under normal operation, complete data is scheduled to be recorded every 32 cycles on the 90-minute and 3-hour packs. On the 24-hour packs, complete data is taken every eight cycles. Complete data is taken every 24 cycles on the 8-hour packs.

CELL TYPE: General Electric 3.0 Ampere-Hour							
TEST NUMBER	DISCHARGE RATE (%)	TEST TEMPERATURE (°)	CYCLES	FAILURE ANALYSIS		CELLS IN PACK	POSITION
				CELL	PACK		
15	25%	1.5	25°	432	7	8065	Low Volt Disch, Low Volt Chg, Blistering on Bottom Edge of Pos Plate, Migration of Neg Plate Material, Separator Completely Deteriorated.
				414	8	8254	Low Volt Disch, Low Volt Chg, Blistering on Bottom Edge of Pos Plate, Migration of Neg Plate Material, Separator Completely Deteriorated.
				479	5	8714	Low Volt Disch, Normal Volt Chg, Deposit on Terminal, Migration of Active Material, Blistering on Edge of Pos Plate, Separator Deteriorated.
				267	10	10123	Low Volt Disch, Normal Volt Chg, Migration of Neg Plate Material Through Separator, Hot Spots Around Pinpoint Penetration, Blistering on Pos Plates, Separator Deteriorated.
				485	4	10382	Low Volt Disch, Low Volt Chg, Migration of Neg Plate Material Through Separator, Hot Spots Around Pinpoint Penetration, Blistering on Pos Plates, Separator Deteriorated.
				447	9	10382	Low Volt Disch, Low Volt Chg, Migration of Neg Plate Material Through Separator, Hot Spots Around Pinpoint Penetration, Blistering on Pos Plates, Separator Deteriorated.
				427	7	3585	Low Volt Disch, Normal Volt Chg, Pos Tab Broken and Touching Case, Burned Tape on Tab Caused by Overheating From Poor Tab Weld.
				58	6	4473	Low Volt Disch, Normal Volt Chg, Short on One Edge of Plates, Neg Plate Material Penetrated Separator.
				361	1	4741	Low Volt Disch, Normal Volt Chg, Shorted, Separator Deteriorated, Neg Plate Material Penetrated Separator.
				522	5	4917	Low Volt Disch, Low Volt Chg, Separator Impregnated with Neg Plate Material, Separator Deteriorated.

TEST NUMBER	TEST TEMPERATURE (degrees Celsius)	CELL TYPE: FAILURE ANALYSIS	GENERAL ELECTRIC 3.0 AMPERE-HOUR						
			CELL NUMBER	DISCHARGE RATE	DISCHARGE TIME	CHARGE RATE	CHARGE TIME	DISCHARGE VOLTAGE	CHARGE VOLTAGE
16	40%	Nickel-Cadmium..	4917	Low Volt Disch, Low Volt Chg, Separator Impregnated with Neg Plate Material, Separator Deteriorated.	10	456	25°	1.5	4.56
39	15%	ANALYSIS	5013	Low Volt Disch, Low Volt Chg, Separator Impregnated with Neg Plate Material, Separator Deteriorated, Several Small Burned Areas on Separator.	4	719	25°	1.5	2.5
			7779	Low Volt Disch, High Volt Chg, Leaked, Shorted at Top of Core, Separator Too Short, Pos Tab Burned.	2	541	50°	1.5	541
			2083	Low Volt Disch, High Volt Chg, Leaked, Shorted at Top of Core, Separator Too Short, Pos Tab Burned.	6	540	40°	1.5	40°
			2523	Low Volt Disch, High Volt Chg, Pos Tab Burned.	7	549	40°	1.5	40°
			7213	Low Volt Disch, Normal Volt Chg, Deposit Around Pos Terminal, Pos Tab Burned, Migration of Neg Plate Material, Separator Deteriorated.	1	527	40°	1.5	40°
			8109	Low Volt Disch, Normal Volt Chg, Leaked, Lost 3.5 gm, Pos Tab Burned, Migration of Active Material, Separator Deteriorated.	5	534	40°	1.5	40°
			8109	Low Volt Disch, Normal Volt Chg, Pinpoint Penetration, Separator Deteriorated.	8	550	40°	1.5	40°
			2073	Low Volt Disch, High Volt Chg, Shorted at Top of Core, Separator Too Short, Pos Tab Burned.	3	464	40°	1.5	40°
			2182	Low Volt Disch, Normal Volt Chg, Leaked, Loose Plate Material on Separator.	8	3131	40°	1.5	40°
			2182	Low Volt Disch, High Volt Chg, Shorted at Top of Core, Separator Too Short, Pos Tab Burned and Broken.	7	47	40°	1.5	40°

CELL TYPE: General Electric 3.0 Ampere-Hour						
FAILURE ANALYSIS						
PACK NUMBER	DEPTH OF DISCHARGE	OBTAIN PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES CONDUCTED
40	25%	1.5	40°	40	5	2446
			40°	40	10	2461
			40°	40	15	2500
			40°	40	20	2511
			40°	40	25	2516
			40°	40	30	2520
			40°	40	35	2524
			40°	40	40	2528
			40°	40	45	2532
			40°	40	50	2536
			40°	40	55	2540
			40°	40	60	2544
			40°	40	65	2548
			40°	40	70	2552
			40°	40	75	2556
			40°	40	80	2560
			40°	40	85	2564
			40°	40	90	2568
			40°	40	95	2572
			40°	40	100	2576
			40°	40	105	2580
			40°	40	110	2584
			40°	40	115	2588
			40°	40	120	2592
			40°	40	125	2596
			40°	40	130	2600
			40°	40	135	2604
			40°	40	140	2608
			40°	40	145	2612
			40°	40	150	2616
			40°	40	155	2620
			40°	40	160	2624
			40°	40	165	2628
			40°	40	170	2632
			40°	40	175	2636
			40°	40	180	2640
			40°	40	185	2644
			40°	40	190	2648
			40°	40	195	2652
			40°	40	200	2656
			40°	40	205	2660
			40°	40	210	2664
			40°	40	215	2668
			40°	40	220	2672
			40°	40	225	2676
			40°	40	230	2680
			40°	40	235	2684
			40°	40	240	2688
			40°	40	245	2692
			40°	40	250	2696
			40°	40	255	2700
			40°	40	260	2704
			40°	40	265	2708
			40°	40	270	2712
			40°	40	275	2716
			40°	40	280	2720
			40°	40	285	2724
			40°	40	290	2728
			40°	40	295	2732
			40°	40	300	2736
			40°	40	305	2740
			40°	40	310	2744
			40°	40	315	2748
			40°	40	320	2752
			40°	40	325	2756
			40°	40	330	2760
			40°	40	335	2764
			40°	40	340	2768
			40°	40	345	2772
			40°	40	350	2776
			40°	40	355	2780
			40°	40	360	2784
			40°	40	365	2788
			40°	40	370	2792
			40°	40	375	2796
			40°	40	380	2800
			40°	40	385	2804
			40°	40	390	2808
			40°	40	395	2812
			40°	40	400	2816
			40°	40	405	2820
			40°	40	410	2824
			40°	40	415	2828
			40°	40	420	2832
			40°	40	425	2836
			40°	40	430	2840
			40°	40	435	2844
			40°	40	440	2848
			40°	40	445	2852
			40°	40	450	2856
			40°	40	455	2860
			40°	40	460	2864
			40°	40	465	2868
			40°	40	470	2872
			40°	40	475	2876
			40°	40	480	2880
			40°	40	485	2884
			40°	40	490	2888
			40°	40	495	2892
			40°	40	500	2896
			40°	40	505	2900
			40°	40	510	2904
			40°	40	515	2908
			40°	40	520	2912
			40°	40	525	2916
			40°	40	530	2920
			40°	40	535	2924
			40°	40	540	2928
			40°	40	545	2932
			40°	40	550	2936
			40°	40	555	2940
			40°	40	560	2944
			40°	40	565	2948
			40°	40	570	2952
			40°	40	575	2956
			40°	40	580	2960
			40°	40	585	2964
			40°	40	590	2968
			40°	40	595	2972
			40°	40	600	2976
			40°	40	605	2980
			40°	40	610	2984
			40°	40	615	2988
			40°	40	620	2992
			40°	40	625	2996
			40°	40	630	3000

Cell Type: General Electric 3.0 Ampere-Hour						
Failure Analysis	Nickel-Cadmium					
Cell Number	Test Temperature	Orbit Period (hours)	Depth of Discharge	Cell Position	Cycles	Cell Type
44	40°	3.0	25%	222	6	1672 Showed Open Circuit at Start of Cycle, Pos Tab Broken, Burned Tape on Tab Caused By Overheating From Poor Tab Weld.
				366	7	3843 Low Volt Disch, High Volt Chg, Pinpoint Penetration, Separator Deteriorated, Blistering on Bottom Edge of Pos Plate.
				4457	1	3854 Shorted on Cycling, Deposit on Pos Terminal, Pinpoint Penetration, Separator Deteriorated.
				777	5	3854 Low Volt Disch, Normal Volt Chg, Migration of Active Material, Separator Deteriorated.
				3120	2	4487 Low Volt Disch, High Volt Chg, Deposit on Pos Terminal, Loose Active Pos Plate Material, Migration of Neg Plate Material Through Separator, Hot Spots Around Pinpoint Penetrations, Blistering on Pos Plates, Separator Deteriorated.
				296	10	4487 Low Volt Disch, Low Volt Chg, Deposit on Pos Terminal, Migration of Neg Plate Material Through Separator, Hot Spots Around Pinpoint Penetrations, Blistering on Pos Plates, Separator Deterioration

CELL NUMBER	PACK	DEPTH OF DISCHARGE	TEST TEMPERATURE	ORBIT PERIOD (HOURS)	CELL NUMBER	POSITION	NUMBER OF CYCLES	CELL FAILURE ANALYSIS	CELL TYPE: Ground 3.5 Ampere-Hour	
									Nickel-Cadmium	ANALYSIS
2	25%	25%	25°	1.5	2705	5	2	Low Volt Disch, High Volt Chg, Short Near Center of Core, Piece of Pos Plate Material Between Plates Causing Short Through Separator.	Low Volt Disch, Low Volt Chg, Leaked, Lost 1.7 gm, Weak Weld on Neg Tab to Plate.	
									Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.7 gm, Deposit on Glass Seal, Short Through Separator, Short at Pos Tab Near Center of Core, Neg Tab Weld to Plate Weak.	
									Low Volt Disch, Normal Volt Chg, Leaked Around Glass Seal, Lost 2.6 gm, Separator Deteriorated, Neg Plate Material Penetrated Separator.	
									Low Volt Disch, Normal Volt Chg, Leaked Around Glass Seal, Lost 2.5 gm, Separator Deteriorated, Neg Plate Material Penetrated Separator.	Separator Impregnated with Neg Plate Material, Blistering on Neg Plates.
									Low Volt Disch, Normal Volt Chg, Separator Deteriorate	Separator Impregnated with Neg Plate Material, Blistering on Neg Plates.
									Low Volt Disch, Normal Volt Chg, Leaked, Lost 2.1 gm, Neg Plate Material on Separator.	
									Low Volt Disch, Normal Volt Chg, Leaked, Lost 3.2 gm, High Pres Bulge Top.	
									Low Volt Disch, Low Volt Chg, Leaked, Lost 2.7 gm, High Pres Bulge Top.	
									Low Volt Disch, Low Volt Chg, Separator Deteriorated at Center of Core, Under Pressure When Opened.	

CELL NUMBER	DEPTH OF DISCHARGE	CREDIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLE SEQUENCE	FAILURE ANALYSIS	CELL TYPE: Gould 3.5 Ampere-Hour
								Nickel-Cadmium
4	40%	1.5	25°	43	6	244	Low Volt Disch, Low Volt Chg, Leaked, Lost 1.3 gm, Plate Material on Separator.	
				259	27	3720	Low Volt Disch, Normal Volt Chg, Deposit on Glass Seal, Separator Deteriorated.	
				259	27	3721	Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.6 gm, Separator Deteriorated, Pos Plate Material Between Plates.	
				259	27	3722	Low Volt Disch, Normal Volt Chg, Leaked Around Glass Seal, Lost 2.7 gm, Neg Plate Material Migrated Through Separator, Separator Deteriorated, One Weak Weld Pos Tab to Plate.	
				259	27	3723	Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.1 gm, Glass Seal Broken, Separator Very Dry, Neg Plate Material Migration, Pinpoint Penetration, Loose Neg Plate Material on Separator, Separator Deteriorated, All Tab Welds to Plate Weak.	
				259	27	3724	Low Volt Disch, Normal Volt Chg, Leaked, Lost 2.0 gm, Deposit on Glass Seal, Separator Deteriorated, Pinpoint Penetration, Neg Plate Material on Separator, Weak Weld on One Tab to Pos Plate Welded.	
				259	27	3725	Shorted on Cycling, Deposit on Glass Seal, Leaked, Lost 1.1 gm, Weak Weld Pos Tab to Plate, Neg Plate Material on Separator, Pinpoint Penetration, Separator Deteriorated.	
				259	27	3726	Low Volt Disch, Normal Volt Chg, Deposit Around Glass Seal, Leaked, Lost 1.7 gm, Neg Plate Material Loose, Pinpoint Penetration, Separator Deteriorated.	
				259	27	4175	Low Volt Disch, Normal Volt Chg, Deposit on Glass Seal, Leaked, Lost 1.4 gm, One Weak Weld on Pos Tab to Plate, Pinpoint Penetration, Separator Deteriorated.	

CELL NUMBER	PACK DEPTH OF DISCHARGE (%)	DISCHARGE RATE (HOURS)	TEST TEMPERATURE (°C)	CELL POSITION	CELL CYCLES	FAILURE ANALYSIS	CELL TYPE: <u>Gould 3.5 Amphere-Hour</u>
							NICKEL-Cadmium
8	40%	3.0	25°	68	6	1346	Low Volt Disch, Low Volt Chg, Leaked, Lost 1.5 gm, Plate Material on Separator.
			25°	112	8	1704	Low Volt Disch, Normal Volt Chg, Leaked, Lost 2.0 gm, Pos Tab Weld to Bottom of Can Weak, Pos Tab Weld to Plate Weak.
			25°	39	1	1985	Low Volt Disch, Normal Volt Chg, Deposit on Glass Seal, Separator Deteriorated, Neg Plate Material on Separator.
			25°	170	10	1985	Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.8 gm, Pos and Neg Tab Weld Weak to Plates Near Center of Core, Separator Deteriorated at Center of Core.
			25°	78	7	2138	Low Volt Disch, Low Volt Chg, Leaked Around Glass Seal, Lost 1.4 gm, Pos Tab Weld to Case Weak, Separator Deteriorated, Neg Plate Material Penetrated Separator.
			25°	41	2	2494	Low Volt Disch, Low Volt Chg, Leaked Around Glass Seal, Lost 1.7 gm, Separator Deteriorated, Neg Plate Material Impregnated Separator, One Bad Weld Neg Tab to Plate.
			25°	130	9	2494	Low Volt Disch, Low Volt Chg, Leaked Around Glass Seal, Lost 2.1 gm, Separator Deteriorated, Pos and Neg Plate Material Impregnated Separator.
			15%	40°	3	2901	Low Volt Disch, Low Volt Chg, Leaked, Lost 1.5 gm, Separator Deteriorated, Pos Plate Material on Separator.
			40°	195	8	2901	Low Volt Disch, Normal Volt Chg, Leaked, Lost 3.6 gm, Short Through Separator, Separator Burned at Center of Core, Pos Plate Material on Separator.
			40°	103	7	2998	Low Volt Disch, Normal Volt Chg, High Pres, Short Through Separator, Pieces of Pos Plate Material Between Plates.

CELL TYPE: Gould 3.5 Amperere-Hour							
NUMBER PACK	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES SOLVED	FAILURE ANALYSIS
							NICKEL-Cadmium
27	15%	1.5	40°	227	1	3270	Low Volt Disch, Normal Volt Chg, Leaked, Lost 2.5 gm, Short Through Separator, Separator Deteriorated at Center of Core, Pos Tab Weld to Case Weak.
				127	9	4102	Low Volt Disch, High Volt Chg, Leaked Around Glass Seal, Lost 1.4 gm, Short at Pos Tab, Separator Deteriorated, Neg Plate Material Penetrated Separator.
				127	2	4425	Low Volt Disch, Normal Volt Chg, Deposit on Glass Seal, Separator Deteriorated, Separator Impregnated with Neg Plate Material.
				122	2	408	Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.8 gm, Weak Bottom Weld Suspicious Spot but not Definite.
				157	7	484	Low Volt Disch, Normal Volt Chg, Leaked, Lost 2.0 gm, High Pres Bulge.
				158	8	484	Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.9 gm, High Pres Bulge Top.
				141	5	860	Low Volt Disch, High Volt Chg, Leaked, Lost 3.5 gm.
				168	10	1293	Low Volt Disch, High Volt Chg, Weak Weld to Bottom of Case.
				121	1	1811	Low Volt Disch, Low Volt Chg, Short at Outside End of Plates, Grid Wire Penetrated Separator.
				133	3	1811	Low Volt Disch, High Volt Chg, Weak Weld on Pos Tab to Case.
				140	4	1811	Low Volt Disch, Low Volt Chg, Short Around Pos Tab, Blistering on Pos Plate, Active Neg Plate Material on Separator.

PACK NUMBER	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	TEST CYCLES	FAILURE ANALYSIS	CELL TYPE: Gould 3.5 Ampere-Hour
							NICKEL-Cadmium
28	25%	1.5	40°	1811	1811	Low Volt Disch, Low Volt Chg, Short Through Separator, Weak Weld to Bottom of Case.	
31	1.5%	3.0	40°	R163	9	Low Volt Disch, Low Volt Chg, Short Through Separator, Weak Weld to Bottom of Case, Deposit on Glass Seal.	
			40°	R166	2	Low Volt Disch, Low Volt Chg, Leaked, Lost 7.1 gm, Separator Deteriorated.	
			40°	R179	19	Low Volt Disch, Low Volt Chg, Leaked, Lost 1.5 gm, Short Through Separator, Separator Deteriorated, One Weak Tab.	
			40°	R92	2	Low Volt Disch, High Volt Chg, Pieces of Plate Material Shorted Through Separator, Separator Deteriorated.	
			40°	126	3	Low Volt Disch, Low Volt Chg, Leaked Around Glass Seal, Lost 2.4 gm, Short Through Separator by Piece of Pos Plate Material Between Plates, Separator Deteriorated, Neg Plate Material Impregnated Separator, Tab to Plate Weld Poor.	
			40°	R162	8	Low Volt Disch, High Volt Chg, Leaked Around Glass Seal, Lost 2.4 gm, Separator Deteriorated, Neg Plate Material Impregnated Separator, Pinpoint Penetration, Poor Weld Pos Tab to Case.	
			40°	72	1	Low Volt Disch, Low Volt Chg, Leaked Around Glass Seal, Lost 1.3 gm, Short Between Plates, Extra Piece of Pos Plate Between Plates, Separator Deteriorated, Pos Tabs to Plate Weld Both Weak.	
			40°	143	6	Low Volt Disch, Low Volt Chg, Short Through Separator at Start of Core, Extra Piece of Pos Plate Material, Separator Impregnated with Neg Plate Material, Separator Deteriorated, Neg Tab Weld to Pigtail Weak, One Tab to Pos Plate Weld Weak, Still Under Pressure When Opened.	
			40°	2517			

CELL TYPE: Gould 3.5 Ampere-Hour							
PACK NUMBER	DISCHARGE PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES	CELL TESTS	FAILURE ANALYSIS
32	2.5%	3.0	40°	125	6	138	Low Volt Disch, Normal Volt Chg, Bottom Weld Weak, Greenish Corrosion Inside at Neg Lead.
			40°	65	2	475	Low Volt Disch, Normal Volt Chg, Leaked, Lost 1.5 gm, Bad Glass Seal Around Neg Terminal.
			40°	1	1	830	Low Volt Disch, Normal Volt Chg, Leaked, Lost 3.2 gm, Short Near Center of Core.
			40°	57	4	975	Low Volt Disch, Low Volt Chg, Leaked, Lost 2.2 gm, Short Around Tabs, Pos Tab Weld Weak to Case.
			40°	132	7	875	Failed During Shut Down to Move to Another Chamber, Leaked, Lost 4.4 gm, High Pres. Neg Tabs Pushed Out of Cell, Short at Center and Outside Edge of Core.
			40°	149	9	974	Low Volt Disch, High Volt Chg, Leaked, Lost 1.1 gm, Piece of Pos Plate Material Shorted Through Separator, Weak Welds to Case and Plates.

CELL TYPE: Sonotone 5.0 Ampere-Hour			
FAILURE ANALYSIS	Nickel-Cadmium		
CYCLE TESTS	3155	Shorted on Cycling, Leaked Around Seal, High Pressure Bulge on Bottom, Insulators Brittle, Exposed Grid Wires at Center of Core Penetrated Separator Causing Large Burned Area at Short, Pos and Neg Tab Weld Poor.	
POSITION IN PACK	3992	Low Volt Disch, Normal Volt Chg, Leaked Around Seal, High Pressure Bulge on Bottom, Hole in Separator Exposing Pos and Neg Plates, Neg Plate Material Penetrated Separator.	
CELL NUMBER	4411	Low Volt Disch, Low Volt Chg, Two Pieces of Neg Plate Material Wore Hole in Separator at Scoring Mark, Burned Through Plates, Neg Tab Welds Poor, Separator Beginning to Deteriorate.	
TEST TEMPERATURE	3628	Low Volt Disch, Normal Volt Chg, Deposit on Glass Seal, Pos and Neg Plate Material on Separator, Separator Deteriorated, Neg Tab to Plate Welds Weak, Burn Marks on Separator at Tabs, High Pressure Bulge.	
OBTAIN PERIOD (HOURS)	3613	Low Volt Disch, Normal Volt Chg, Deposit on Glass Seal, Pos and Neg Plate Material on Separator, Separator Torn at Start of Core Exposing Pos and Neg Plate, Separator Deteriorated, Neg Plate Material on Separator.	
DEPTH OF DISCHARGE	3630	Low Volt Disch, Low Volt Chg, Uncoined Plate Edges Pierced Separator Causing Partial Shorts, Burn Marks Around Tab Areas, Weak Weld on All Tab to Plate Welds, Deep Pressure Points Caused by Scoring, Separator Torn at Start of Core Exposing Pos and Neg Plate, Separator Deteriorated, Neg Plate Material on Separator.	
PACK NUMBER	3631	Low Volt Disch, Normal Volt Chg, Deposit on Glass Seal, High Pressure Bulge, Excess Scoring, Migration of Pos and Neg Plate Material, Separator Completely Deteriorated.	
2	40%	21	

CELL TYPE: Sonotone 5.0 Ampere-Hour						
NUMBER	DEPTH OF DISCHARGE (%)	ORBIT PERIOD (HOURS)	TEST TEMPERATURE (°C)	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED
25	15%	1.5	40°	4852	5	6348
				4364	4	7952
			40°	4317	1	7758
			40°	4350	3	9070
			40°	6850	6	9220
			40°	4347	2	9328
			40°	4323	1	2487
26	25%	1.5	40°	6773	9	2932

NUMBER PACK	DEPTH OF DISCHARGE	TEST TEMPERATURE	NUMBER CELL	POSITION IN PACK	CYCLES GIVEN	CELL TYPE:	<u>Sonotone 5.0 Ampere-Hour</u>	
							FAILURE ANALYSIS	NICKEL-CADMIUM
26	25%	1.5	40°	7224	6	2993	Low Volt Disch, Normal Volt Chg, High Pres Bulge, Deposit Around Seal, Neg Tab Weld Weak, Neg Plate Material Penetrated Separator.	
				7232	7	2993	Low Volt Disch, Normal Volt Chg, High Pres Bulge, Deposit Around Seal, Pos Tab Weld Weak, Plate Broken at Pos Tab, Deep Pressure Points From Scoring, Separator Completely Deteriorated.	
				4832	3	3344	Shorted on Cycling, Complete Short From Deep Scoring, Plate Shorted Through Outer Wrap.	
				4240	4	3625	Low Volt Disch, Low Volt Chg, Separator Deteriorated, Plate Material Penetrated Separator.	
				3657	7	855	Hole in Separator Allowing Pos Plate to Hit Case, Separator Damaged at Center of Cell Allowing Pos and Neg Plate to Short Together.	
				3643	4	3068	Low Volt Disch, Low Volt Chg, Separator Completely Deteriorated, Neg Tab to Plate Welds Weak, Burn Spots Around Tabs, Deep Scoring Caused Burn Spots on Separator.	
				809	9	3068	Low Volt Disch, Low Volt Chg, Deposit Around Glass Seal, Burn Spots Around Edge of Separator Caused By Uncoined Edge of Plates, Deep Scoring Caused Burn Spots on Separator, Burn Spots Around Tab Areas, Separator Deteriorated.	
				3658	8	3684	Low Volt Disch, Low Volt Chg, Deposit on Glass Seal, Leaked, Lost 1.3 gm, Short Caused by Excess Scoring, Migration of Pos and Neg Plate Material, Separator Completely Deteriorated.	
				3617	1	4141	Shorted During Cycling, Deposit on Glass Seal, Hole in Separator at Tab Weld Area Caused Short, Separator Completely Deteriorated.	
				7230	10	4141	Low Volt Disch, Low Volt Chg, Deposit on Glass Seal, Migration of Neg Plate Material, Separator Completely Deteriorated.	

CELL TYPE: Gulton 6.0 Ampere-Hour							
NUMBER PACK	NUMBER (HOURS)	TEST TEMPERATURE	TEST NUMBER	POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS	CELL NICKEL-Cadmium
							CELL TYPE
13	25%	1.5	2305	1	308	Low Volt Disch, High Volt Chg, Lost 12 gm, CO ₃ Top Ceramic, High Pres Bulge.	
			2355	10	202	Low Volt Disch, High Volt Chg, Lost 10 gm, High Pres Bulge.	
			3134	5	2969	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates.	
			3211	7	3084	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates.	
			2613	4	3598	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plate, Separator Deteriorated.	
			2324	2	4021	Low Volt Disch, Low Volt Chg, Ceramic Short, Separator Deteriorated, Separator Impregnated with Neg Plate Material, Blistering on Pos Plates, High Pres Bulge.	
			1623	4	262	Low Volt Disch, High Volt Chg, Lost 12 gm, High Pres Bulge,	
			1635	5	262	Voltage Fell Off During Charge, Went Flat in 3 Min. on Disch, Lost 6 gm, Concave Wall, High Pres Bulge, Ceramic Broken Inside Case, CO ₃ on Outside of Ceramic, Pos Terminal Loose.	
			2356	1	450	Low Volt Disch, High Volt Chg, Lost 12 gm, High Pres.	
			2387	2	1113	Low Volt Disch, High Volt Chg, Ceramic Short.	
			2391	3	1618	Low Volt Disch, Low Volt Chg, Ceramic Short.	
			3208	7	2086	Low Volt Disch, Normal Volt Chg, Ceramic Short.	

CELL TYPE: Gulton 6.0 Ampere-Hour						
PACK NUMBER	DISCHARGE DEPTH OF	TEST TEMPERATURE	CELL NUMBER	FAILURE ANALYSIS		CYCLES COMPLETED IN PACK
				Failure Type	Failure Analysis	
17	25%	25°	1862	5	721	Low Volt Disch, High Volt Chg, Ceramic Short.
		25°	1823	3	721	Low Volt Disch, High Volt Chg, High Pres Bulge, Burnt Spot on Neg Plate Near Bottom Second From End, Ceramic Short.
		25°	2343	19	1630	Low Volt Disch, Low Volt Chg, Ceramic Short.
		25°	1727	1	2375	Low Volt Disch, Low Volt Chg, Ceramic Short, Deposit Around Ceramic Seal, High Pres Bulge.
		25°	1598	2	2449	Low Volt Disch, Low Volt Chg, Pinpoint Penetration of Separator, Blistering on Pos Plate, High Pres Bulge.
		25°	2347	9	2885	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates, High Pressure Bulge, Still Under Pressure When Opened.
		25°	1826	6	365	Low Volt Disch, Chg Volt Normal, Lost 3 gm, Concave Wall, Ceramic Short.
	40%	25°	1615	3	608	Low Volt Disch, Normal Volt Chg, Deposit on Top of Pos Terminal, Lost 5.1 gm, High Pres Bulge.
		25°	1827	7	643	Low Volt Disch, High Volt Chg, High Pres Bulge, Ceramic Short.
		25°	2228	9	643	Low Volt Disch, High Volt Chg, Ceramic Short.
		25°	1562	5	1145	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates.
		25°	1233	4	1550	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plate, Neg Plate Material on Separator.

CELL TYPE: Gulton 6.0 Ampere-Hour									
PACK NUMBER	DISCHARGE DEPTH OF PERIOD	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS		Nickel-Cadmium
							Cell Type	Failure Analysis	
37	15%	1.5	50°	1764	3	238	Low Volt Disch, Volt Did Not Increase on Following Chg, (1.00 V) Lost 4 gm, Ceramic Short.		
			40°	1784	8	1566	Low Volt Disch, Low Volt Chg, Lost 10.5 gm, Ceramic Short.		
			40°	1802	4	2819	Low Volt Disch, Ceramic Short, Blistering on Pos Plate.		
			40°	2333	10	2431	Low Volt Disch, Normal Volt Chg, Ceramic Short, Blistering on Pos Plates.		
			40°	1769	7	4897	Low Volt Disch, Normal Volt Chg, Ceramic Short, Leaked, Lost 1 gm, Blistering on Pos Plate, Separator Deteriorated.		
			40°	1814	6	6064	Low Volt Disch, High Volt Chg, Deposit on Pos Terminal, Separator Deteriorated, Neg Plate Material on Separator, Blistering on Pos Plates, Ceramic Short.		
			38	1454	8	37	No Volt on Chg or Disch, Ceramic Short.		
	25%	1.5	50°	1815	6	114	Volt Fell Off During Disch, Chg Volt Slightly Low, Lost 3.5 gm, Ceramic Short.		
			40°	1853	9	187	Rev on Disch, Chg Volt Normal, Lost 4 gm, Deposits Around Pos Terminal (Outside), Ceramic Short.		
			40°	1627	3	225	Low Volt Disch, High Volt Chg on Cycle 219, Dead on 225, Lost 3.5 gm.		
			40°	2405	5	1333	Low Volt Disch, Normal Volt Chg, Pos Bus Shorted to Case.		
			40°	1626	2	1377	Low Volt Disch, Low Volt Chg, High Pres Bulge, Ceramic Short.		

PACK NUMBER	DISCHARGE CAPACITY (HOURS)	TEST TEMPERATURE	CELL NUMBER	TEST POSITION IN PACK	CYCLES COMPLETED	CELL TYPE: Gulton 6.0 Ampere-Hour	FAILURE ANALYSIS	
							NICKEL-CADMIUM	NICKEL-COPPER
41	15%	3.0	40°	1771	9	649	Low Volt Disch, High Volt Chg, Ceramic Short.	
			40°	1801	6	1062	Low Volt Disch, Normal Volt Chg, Ceramic Short.	
			40°	3135	2	1132	Low Volt Disch, Normal Volt Chg, Ceramic Short.	
			40°	1852	7	1157	Low Volt Disch, Normal Volt Chg, Ceramic Short, Blistering on Pos Plates.	
			40°	2221	8	1157	Low Volt Disch, Normal Volt Chg, Ceramic Short.	
			40°	1632	3	1689	Low Volt Disch, Normal Volt Chg, Ceramic Short, Blistering on Pos Plates.	
			40°	50°	8	96	Low Volt Disch, Normal Volt Chg, Ceramic Short.	
			40°	2309	7	382	Low Volt Disch, Low Volt Chg, CO ₃ on Bottom of Case, Ceramic Short.	
			40°	2346	7	382		
			40°	2306	9	416	Low Volt Disch, High Volt Chg, Ceramic Short.	
			40°	918	1	484	Low Volt Disch, Low Volt Chg, High Pres Bulge, Deposit on Bottom of Case, Ceramic Short, Lost 3.1 gm.	
			40°	2340	6	3619	Low Volt Disch, Normal Volt Chg, Deposit Around Ceramic Seal and Bottom Seam of Can, Leaked, Lost 8.2 gm, Pinpoint Penetration, Separator Deteriorated.	
			40°	2334	4	4133	Low Volt Disch, Low Volt Chg, Deposit Around Cracked Pos Terminal, Leaked, Lost 8.8 gm, Migration of Neg Plate Material, Blistering on Pos Plates, Separator Completely Deteriorated, Ceramic Short.	

PACK NUMBER	DISCHARGE TIME PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS	CELL TYPE: <u>Gulton 6.0 Ampere-Hour</u>
							Nickel-Cadmium
61	15%	1.5	0°	1622	2	1	Volt Between 0.25 and 0.3 V Throughout Cycle, Side Concave, Burnt Case, End Neg Pushed Into Pos Tab. Cell Replaced in Pack Due to Early Failure.
			0°	1845	8	6	Lost .5 gm, Leak at Weld on Bottom, High Pres Bulge, Cell Replaced in Pack Due to Early Failure.
			0°	2397	5	2762	Low Volt Disch, Low Volt Chg, Ceramic Short.
			0°	1825	4	4094	Low Volt Disch, Low Volt Chg, Ceramic Short, Separator Impregnated with Neg Plate Material, Blistering on Pos Plates, High Pres Bulge.
			0°	2311	10	4285	Low Volt Disch, Low Volt Chg, Ceramic Short, Separator Impregnated with Neg Plate Material, Blistering on Pos Plates, High Pres Bulge.
			0°	2400	6	4413	Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates, High Pres Bulge.
			0°	1636	3	*9760	Low Volt Disch, Low Volt Chg, High Pres Bulge, Concave Sides Leaked, Lost 2.7 gm, Rough Place on Pos Plate Shorted Through Separator, Migration of Neg Plate Material Through Separator, Blistering on Pos Plates, Separator Deteriorated, Ceramic Short.
			0°	1616	1	*10146	Low Volt Disch, High Volt Chg, Deposit on Pos Terminal, Concave Sides Causing Bus to Short Against Case, Pos Tab Burned, Migration of Neg Plate Material Through Separator, Separator Very Slightly Deteriorated, Leaked, Lost 6.0 gm.

* FAILED DURING THIS REPORTING PERIOD.

CELL TYPE: Gulton 6.0 Ampere-Hour									
FAILURE ANALYSIS		Nickel-Cadmium							
PACK NUMBER	TEST TEMPERATURE	CELL NUMBER	TEST ORBIT PERIOD (hours)	DEPTH OF DISCHARGE (%)	CYCLES COMPLETED	TEST POSITION IN PACK	CELL TEMPERATURE	TEST POSITION IN PACK	CELL TEMPERATURE
66	25%	3.0	17794	6	1045	Low Volt Disch, High Volt Chg, High Pres Bulge, Concave Side, Ceramic Broken, No Seal, Lost 5.1 gm, Pos Bus Against Case.	0°	1843	0°
					1173	Low Volt Disch, Low Volt Chg, Wall Concave, Ceramic Short.	0°	1781	0°
					1237	Low Volt Disch, High Volt Chg, High Pres Bulge, Deposit Around Pos Terminal, Ceramic Broken on Pos Terminal, Blisters on Pos Plate, Burnt Spot on Separator at Blisters, Lost 1.3 gm.	0°	1634	0°
					1417	Low Volt Disch, Normal Volt Chg, Ceramic Short, High Pres Bulge, One Side Concave Other Convex, Pos Plates Blistered, Lost 2.3 gm.	0°	1823	0°
					2122	Low Volt Disch, Low Volt Chg, Leaked, Lost 7.8 gm, Separator Impregnated with Neg Plate Material, Blistering on Pos Plates, High Pres Bulge, One Side Concave.	0°	1591	0°
					4414	Low Volt Disch, Normal Volt Chg, Deposit on Pos Terminal, High Pressure Bulge, Concave Sides Shorting Against Pos Bus, Ceramic Short, Migration of Neg Plate Material, Pinpoint Penetration of Separator.	25°	2982	25°
					149	Low Volt Disch, Normal Volt Chg, Deposit on Pos Terminal, Still Under Pressure When Opened, Ceramic Short, Very Light Migration, Blistering on Pos Plates, Separator Deteriorated.	25°	2984	25°
					164	Low Volt Disch, Low Volt Chg, Still Under Pressure When Opened, Ceramic Short, Pinpoint Penetration, Blistering on Pos Plates, Separator Deteriorated.	25°	2983	25°
					545	Low Volt Disch, Normal Volt Chg, Burned Spots Around Pinpoint Penetration, Blistering on Pos Plates, Separator Deteriorated.	25°	2985	25°
					545	Low Volt Disch, Normal Volt Chg, Hot Spots Around Pinpoint Penetration, Blistering on Pos Plates, Separator Deterioration.			

CELL TYPE: General Electric 12.0 Ampere-Hour						
PACK NUMBER	DISCHARGE RATE OF ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	POSITION IN PACK	NUMBER OF CYCLES	FAILURE ANALYSIS
						NICKEL-CADMIUM
85	15%	1.5	40°	428	4	6888 Low Volt Disch, Low Volt Chg, High Pressure Bulge, Still Under Pressure When Opened, Migration of Neg Plate Material, Separator Completely Deteriorated.
			40°	448	3	8947 Low Volt Disch, Low Volt Chg, High Pressure Bulge, Still Under Pressure When Opened, Migration of Neg Plate Material, Separator Completely Deteriorated.
			40°	457	2	2710 Low Volt Disch, Normal Volt Chg, Still Under Pressure When Opened, Migration of Neg Plate Material, Separator Completely Deteriorated.
			40°	208	2	266 Low Volt Disch, Normal Volt Chg, Was Opened Up But Did Not Show Anything to be Wrong with Cell, Failure Due to Loss of Capacity.
			40°	204	1	349 Low Volt Disch, Normal Volt Chg, Deposit on Pos Terminal, Pin-point Penetration, Separator Deteriorated.
			40°	209	3	349 Low Volt Disch, Normal Volt Chg, Deposit on Pos and Neg Terminal, Migration of Neg Plate Material, Separator Deteriorated.
			40°	210	4	349 Low Volt Disch, Normal Volt Chg, Deposit on Neg Terminal, Pin-point Penetration, Separator Deteriorated.
			40°	211	5	349 Low Volt Disch, Normal Volt Chg, Deposit on Neg Terminal, Migration of Neg Plate Material, Separator Deteriorated, Plate Not Packed Evenly.

PACK NUMBER	DEPTH OF DISCHARGE (%)	TEST TEMPERATURE (°)	CELL NUMBER	TEST POSITION IN PACK	CYCLES COMPLETED	CELL TYPE: General Electric 12.0 Ampere-Hour	
						FAILURE ANALYSIS	NICKEL-CADMIUM
96	40%	1.5	25°	445	3	3822	Low Volt Disch, Low Volt Chg, Separator Penetrated by Neg Plate Material, Pinpoint Shorts Through Separator.
			25°	446	2	4020	Low Volt Disch, Low Volt Chg, Separator Penetrated by Neg Plate Material, Pinpoint Shorts Through Separator.
			25°	442	4	4020	Low Volt Disch, Low Volt Chg, Separator Penetrated by Neg Plate Material, Pinpoint Shorts Through Separator.
97	40%	3.0	25°	438	2	3894	Low Volt Disch, Low Volt Chg, Deposit on Pos and Neg Terminals, Pinpoint Penetration, Separator Deteriorated.
			25°	435	3	3946	Low Volt Disch, Normal Volt Chg, Still Under Pressure When Opened, Migration of Neg Plate Material, Blistering on Pos Plate, separator Deteriorated.
			25°	434	4	5002	Low Volt Disch, Normal Volt Chg, Still Under Pressure When Opened, Migration of Neg Plate Material, Separator Completely Deteriorated.
99	25%	1.5	40°	429	3	3841	Shorted on Cycling, Separator Penetrated by Neg Plate Material, Pinpoint Shorts Through Separator, Leaked at Neg Terminal, Epoxy Lifted Up.
			40°	432	2	3841	Failed During Shut Down of Pack, Separator Deteriorated, Separator Impregnated with Neg Plate Material.
			40°	440	1	4853	Low Volt Disch, Low Volt Chg, Separator Deteriorated, Separator Impregnated with Neg Plate Material.

CELL TYPE: General Electric 12.0 Ampere-Hour						
FAILURE ANALYSIS						
PACK NUMBER	1CO	DISCHARGE DEPTH OF	3.0	TEST PERIOD (HOURS)	25%	CYCLES COMPLETED
TEST TEMPERATURE	40°	TEST NUMBER	427	POSITION IN PACK	3	4170
CELL TEMPERATURE	40°	NUMBER	431	NUMBER	2	4358
TEST CYCLES	40°	NUMBER	436	NUMBER	1	4424
Shorted on Cycling, High Pressure Bulge, Still Under Pressure, When Opened, Blistering on Pos Plates, Separator Completely Deteriorated.						
Shorted on Cycling, High Pressure Bulge, Still Under Pressure, Migration of Neg Plate Material, Separator Completely Deteriorated.						
Shorted on Cycling, Migration of Neg Plate Material Through Separator, Separator Completely Deteriorated.						

CELL TYPE: Gulton 12 Ampere-Hour						
PACK NUMBER	DISCHARGE RATE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	FAILURE ANALYSIS	
					POSITION IN PACK	CYCLES
293	25%	1.5	40°	1460	4	3060
				1459	3	3318
			40°	1461	5	5124
			40°	1447	4	5036
		40%	25°	1443	2	5152
			25°	1445	3	5152

Shorted on Cycling, Pinpoint Penetration, Blistering on Pos Plates, Separator Completely Deteriorated Allowing Plates to Short Together.

Low Volt Disch, Low Volt Chg, Pinpoint Penetration, Blistering on Pos Plates, Separator Completely Deteriorated Allowing Plates to Short Together.

Low Volt Disch, Normal Volt Chg, Piece of Loose Neg Plate Material Between Plates, Hot Spots Around Pinpoint Penetration, Blistering on Pos Plates, Separator Completely Deteriorated.

Low Volt Disch, Low Volt Chg, Pinpoint Penetration, Blistering on Pos Plates, All Insulators Burned, Leaked, Lost 3.3 gm.

Shorted on Cycling, High Pressure Bulge, Blistering on Pos Plates, Separator Completely Gone, Hottest Point Near Center of Pack, All Insulators Burned, Leaked, Lost 3.3 gm.

Low Volt Disch, Low Volt Chg, Deposit on Both Terminals, High Pressure Bulge, Migration of Neg Plate Material, Short Through Separator Near Center of Plate, Separator Completely Deteriorated.

PACK NUMBER	DISCHARGE DEPTH (%)	TEST TEMPERATURE (HOURS)	CELL NUMBER	TEST POSITION IN PACK	CYCLES COMPLETED	FAILURE ANALYSIS	CELL TYPE: Gulton 20 Ampere-Hour
							Nickel-Cadmium
73	25%	1.5	25°	396	3	1776	Low Volt Disch, Normal Volt Chg, Concave Side, Neg Ceramic Seal Broken, Lost 23.7 gm.
				387	1	6120	Low Volt Disch, Low Volt Chg, Lost 13.2 gm, Separator Completely Deteriorated, Neg Plate Material Migration, Pinpoint Penetration, Blistering on Pos Plates, High Pressure Bulge.
			25°	465	4	7763	Low Volt Disch, Low Volt Chg, Deposit on Pos Terminal, Sides Concave, Migration of Active Plate Material, Blistering on Pos Plates, Separator Completely Deteriorated, Ceramic Short.
74	25%	3.0	25°	458	4	1184	Low Volt Disch, Low Volt Chg, Leaked, Lost 14.2 gm, Blistering on Pos Plates.
			25°	419	3	1302	Low Volt Disch, Normal Volt Chg, Leaked, Lost 21.9 gm.
			25°	440	2	1754	Low Volt Disch, Normal Volt Chg, Leaked Around Both Terminals, Ceramic Broken on Neg Terminal, Lost 18.0 gm, Neg Plate Material Penetrated Separator, Sides Concaved, Shorting Case to Bus.,
76	15%	1.5	40°	453	2	7697	Shorted on Cycling, Deposit on Neg Terminal, Ceramic Broken Around Neg Terminal, Extraneous Active Material Caused Short Between Plates, Separator Completely Deteriorated.
			40°	431	4	7698	Cell Shorted During Shut Down for Cell Removal, High Pressure Bulge, Still Under Pressure When Opened, Pinpoint Penetration, Causing Shorts, Separator Completely Deteriorated.
			40°	455	3	9348	Shorted During Cycling, High Pressure Bulge, Still Under Pressure When Opened, Hot Spots Around Pinpoint Penetration, Blistering on Pos Plates, Separator Completely Deteriorated, Short on Upper Corner Near Neg Tab.

CELL TYPE: Gulton 20 Ampere-Hour							
FAILURE ANALYSIS	NICKEL-Cadmium						
CYCLES COMPLETED							
IN PACK POSITION							
CELL NUMBER							
TEST TEMPERATURE							
OBTAIN PERIOD (HOURS)							
DEPTH OF DISCHARGE							
PACK NUMBER							
E7	40%	1.5	468	1	163	Low Volt Disch, High Volt Chg, High Pres Bulge, Lost ~ gm.	
			388	2	208	Low Volt Disch, High Volt Chg, Lost 26.7 gm, Ceramic Short Around Pos Terminal.	
			394	3	627	Low Volt Disch, High Volt Chg, Lost 16.4 gm, High Pres Bulge, Deposit on Both Terminals, Ceramic Short to Case.	
			454	4	627	Low Volt Disch, Low Volt Chg, Lost 21.6 gm, Deposit on Both Terminals, Sides Concave, Hit Bus on Both Sides.	
			386	5	627	Low Volt Disch, Low Volt Chg, Lost 18.1 gm, High Pres Bulge, Burnt Separator 5th or 6th Neg Plate Near Top, Ceramic Short.	
			422	2	151	Low Volt Disch, High Volt Chg, High Pres Bulge, Bottom Ceramic Leak, Lost 25 gm.	
			404	1	151	Low Volt Disch, High Volt Chg, High Pres Bulge, Bottom Ceramic Leak, Lost 25 gm.	
			466	3	358	Low Volt Disch, High Volt Chg, High Pres Bulge, Lost 16.4 gm.	
			429	5	358	Low Volt Disch, Low Volt Chg, Ceramic Short Around Pos Terminal.	
			452	4	2824	Low Volt Disch, Low Volt Chg, Short Through Separator at Top of Plates, High Pres Bulge on Sides, High Pres, Separator Deteriorated.	
			457	5	2824	Low Volt Disch, Normal Volt Chg, Short Through Separator, Blistering on Pos Plate, High Pres Bulge on Sides, High Pres.	
			378	3	4045	Normal Volt Disch, Went Dead on Chg During Cap Check, Ceramic Short, Separator Completely Deteriorated.	

NUMBER PACK	DEPTH OF DISCHARGE	ORBIT PERIOD (HOURS)	TEST TEMPERATURE	CELL NUMBER	NUMBER CYCLES	COMPLEXITY IN PACK	CELL TYPE: Gulton 20 Ampere-Hour	FAILURE ANALYSIS	Nickel-Cadmium	
									NUMBER OF CYCLES	NUMBER OF CYCLES
91	25%	3.0	40°	395	4	2862	Shorted Out Following Capacity Check, Leaked, Lost 6.8 gm, Deposit on Both Terminals, Both Ceramic Seals Broken, Separator Completely Deteriorated, Neg Plate Material Migration, Separator Very Wet, Plastic Wrap Burned, Ceramic Short.			
						3385	Shorted on Cycling, High Pressure Bulge, Pos and Neg Plate Material on Separator, Separator Completely Deteriorated.			
						4480	Shorted During Cycling, Deposit on Both Terminals, Still Under Pressure When Opened, Concave Sides, Hot Spots Around Pinpoint Penetration, Blistering on Pos Plates, Separator Completely Deteriorated.			
						447	Shorted During Cycling, Deposit on Neg Terminal, High Pressure Bulge, Concave Sides, Hot Spots Around Pinpoint Penetration, Blistering on Pos Plates, Separator Completely Deteriorated.			
						412	40°			
						489	40°			
						40°				
						40°				
						1.5				
101	25%	1.5	0°	435	2	3111	Low Volt Disch, High Volt Chg, Leaked, Lost 24.6 gm, High Pres Bulge, Separator Very Dry.			
						0°	407	5		
						0°	438	4		
						0°				
						0°				
						0°				
						0°				
115	25%	1.5	0°	490	3	3629	Low Volt Disch, High Volt Chg, Leaked, Lost 13.2 gm, High Pres Bulge, Sides Concave, Blistering on Pos Plates.			
						0°	508	2		
						0°	467	4		
						0°				

Failure Analysis							
Cell Number	Depth of Discharge (%)	Orbit Period (Hours)	Test Temperature (°C)	Cell Number	Position in Pack	Cell Sets/Cycle	Cell Type: Gould 20 Ampere-Hour
							Nickel-Cadmium
104	25%	1.5	25°	69	1	2672	Low Volt Disch, Low Volt Chg, Shorted at Bottom on Pos Plate, Pos Grid Wire Penetrated Separator, Short at Top Between Pos Grid and Neg Tab, High Pressure.
112	15%	1.5	25°	R36	5	2826	Low Volt Disch, Low Volt Chg, Short Between Plates, Grid Wire Penetrated Separator, Pos Plate Material Between Plates, High Pressure.
118	40%	1.5	40°	25	3	2980	Low Volt Disch, Low Volt Chg, Separator Completely Deteriorated, Short Between Plates, High Pressure.
				17	1	5005	Low Volt Disch, Low Volt Chg, Short Between Plates, Short About One Inch From Bottom of Plates, Separator Completely Deteriorated, High Pressure.
				25	2	5005	Low Volt Disch, Low Volt Chg, Shorted Through Separator, Shorted on Bottom Corner of Plates, Separator Completely Deteriorated, High Pressure.
				38	5	5213	Low Volt Disch, Low Volt Chg, Short at Top Corner of Plate Where Pos Tabs are Connected to Plates, Separator Deteriorated Allowing Plates to Come Together, Blistering on Pos Plates.
				61	2	1747	Low Volt Disch, Low Volt Chg, Short at Bottom of Pos Plate, Grid Wires Penetrated Separator Where Tape Holds Plates Together, High Pressure.
				891	4	1963	Low Volt Disch, Low Volt Chg, Shorted at Bottom Corner of Pos Plates, Grid Wires Through Separator, Rough Grid Showing Through at Top and Bottom of Most Plates, High Pressure.
				92	5	2937	Low Volt Disch, Low Volt Chg, Short Through Separator on Side of Plates, Pos Plate Material Penetrated Separator, High Pressure.

CELL TYPE: General Electric 3.0 Ampere-Hour						
PACK NUMBER	DISCHARGE DEPTH OF (%)	TEST TEMPERATURE (°)	CELL NUMBER	TEST PERIOD (HOURS)	TEST TEMPERATURE (°)	CELL NUMBER
20	40%	3.0	25°	421	25°	5
			25°	433	2	4485
			25°	711	6	4485
			25°	710	3	4889

Low Volt Disch, Low Volt Chg, Blistering on Bottom and Top Edge of Pos Plate, Migration of Neg Plate Material, Separator Completely Deteriorated.

Low Volt Disch, Low Volt Chg, Migration of Neg Plate Material Through Separator, Hot Spots Around Pinpoint Penetration, Blistering on Pos Plates, Separator Deteriorated, Burned Pos Tab.

Low Volt Disch, Low Volt Chg, Migration of Neg Plate Material Through Separator, Hot Spots Around Pinpoint Penetrations, Blistering on Pos Plates, Separator Deteriorated, Deposit on Pos Terminal.

Shorted on Cycling, Deposit on Pos Terminal, Migration of Neg Plate Material Through Separator, Hot Spots Around Pinpoint Penetrations, Blistering on Pos Plates, Separator Deteriorated.

Cell Test Data - 1968							
Cell Type: Gould 3.5 Ampere-Hour				Failure Analysis			
Cell Number	Test Temperature (°C)	Depth of Discharge (hours)	Orbit Period (hours)	Cell Position in Pack	Cycles Completed	Failure Analysis	Cell Type
52	25.4	1.5	1.5	116	8	7858 Low Volt Disch, Low Volt Chg, Still Under Pressure When Opened, Neg Plate Material on Separator, Excess Migration of Neg Plate Material, Separator Deteriorated.	Nickel-Cadmium
				194	10	8367 Low Volt Disch, Normal Volt Chg, Under High Pressure When Opened, Pinpoint Penetration, Migration of Active Material Around Tab Areas.	
				108	7	9724 Low Volt Disch, High Volt Chg, Loose Active Pos Plate Material, Migration of Neg Plate Material Through Separator, Separator Deteriorated.	
				118	9	9724 Low Volt Disch, Low Volt Chg, Loose Active Pos Plate Material, Migration of Neg Plate Material Through Separator, Separator Deteriorated.	

Failure Analysis Report						
Failure Type	Failure Analysis			Failure Mechanism		
	Failure Mode	Failure Cause	Failure Effect	Failure Mechanism	Failure Cause	Failure Effect
Cell Failure	Nickel-Cadmium					
Cell Type:	Sonotone 5.0 Ampere-Hour					
Cell Number	4361	4	2995	Low Volt Disch, High Volt Chg, Inclusion on Surface of Outside Pos Plate Wore Hole Through Separator and Thin Outside Wrap, Separator Sticking to Neg Plate, Glass Seal Leaked.		
Test Temperature (Hours)	25°	1.5	4423	Low Volt Disch, High Volt Chg, Neg Tabs Weak Weld to Plates, Separator Melted at Center of Core, Extreme Pressure Points on Separator From Scoring Causing High Resistance Shorts.		
Orbit Period (Hours)	25°	4335	7782	Low Volt Disch, Normal Volt Chg, Deposit on Glass Seal, Short Caused by Excess Scoring, Migration of Neg Plate Material, Separator Completely Deteriorated.		
Depth of Discharge	25%	25°	4878			
Cell Position in Pack	1	25°	4351			
Cell Cycles Completed	1	25°	3771	Low Volt Disch, High Volt Chg, Deposit on Glass Seal, Excess Scoring, Migration of Neg Plate Material, Deep Pressure Points Resulting in Intermittent Shorts, Separator Deteriorated.		
Test Temperature	25°	3.0				
Orbit Period (Hours)	25%	25°				
Depth of Discharge	25%	25°				
Cell Number	4878	6				
Cell Position in Pack	5	25°				
Cell Cycles Completed	1	25°				

TEST NUMBER	CELL TEMPERATURE	TEST CYCLES	CELL POSITION	CELL NUMBER	FAILURE ANALYSIS	CELL TYPE:	Sonotone 5.0 Ampere-Hour	
						ORBIT PERIOD (hours)	DEPTH OF DISCHARGE	PACK NUMBER
6	25°	1069	TN PACK	4324	8	1069	40%	1069
	25°	1136	POSITIVE	6904	10	1136	40%	6904
	25°	1161	NEGATIVE	3637	4	1161	40%	3637
	25°	3798	SOFT	6875	2	3798	40%	6875
	25°	4603	SOFT	6882	7	4603	40%	6882
	40°	1418	SOFT	3626	1	1418	40%	3626
	40°	4835	SOFT	810	7	4835	40%	810
	40°	4340	SOFT	4327	8	4340	40%	4327

CELL TYPE: Sonotone 5.0 Ampere-Hour						
PACK NUMBER	DEPTH OF DISCHARGE (hours)	TEST TEMPERATURE 0°	CELL NUMBER 4370	CYCLES COMPLETED 9	POSITION IN PACK	FAILURE ANALYSIS Nickel-Cadmium
49	15%	0°	6887	2010	Low Volt Disch, Burn on Separator Opposite Pos Tab.	Shorted During Cycling, Short Through Separator Caused By Deep Pressure Points Adjacent to Scoring, Migration of Neg Plate Material, Small Inclusion on Plates Starting to Penetrate Through Separator.

NUMBER OF CYCLES	TEST TEMPERATURE (°)	CELL NUMBER	POSITION IN PACK	CONTAMINEE	CELL TYPE: Gulton 6.0 Ampere-Hour	
					FAILURE ANALYSIS	Nickel-Cadmium
62	25%	1.5	0°	1630	10	2995 Low Volt Disch, High Volt Chg, Leaked, Lost 6.8 gm, Ceramic Seal Broke, Deposit on Inside of Ceramic, High Pres Bulge, Blistering on Pos Plates.
			0°	1792	4	4066 Low Volt Disch, Low Volt Chg, Small Shorts Through Separator Near Pos Tab, Blistering on Pos Plate, Separator Deteriorated.
			0°	1906	5	4441 Low Volt Disch, Low Volt Chg, Ceramic Short, Blistering on Pos Plates, High Pres Bulge.
			0°	2227	7	8590 Low Volt Disch, Low Volt Chg, High Pressure Bulge, Still Under Pressure When Opened, Pinpoint Penetration, Blistering on Pos Plates, Ceramic Short.
			3.0			
65	15%		0°	1284	4	5012 Low Volt Disch, Low Volt Chg, Deposit on Pos Terminal, Still Under Pressure When Opened, Concave Sides, Edge of Pos Tab Shorted to Top of Neg Plates, Very Light Migration of Neg Plate Material, Blistering on Pos Plates.
			0°	2095	6	*5706 Low Volt Disch, Low Volt Chg, Concave Sides Shorted Pos and Neg Bus to Case, Pinpoint Migration Through Separator, Blisters on Pos Plate, Separator Deteriorated.
			0°	1808	8	*6186 Low Volt Disch, Low Volt Chg, Concave Sides Shorted Pos and Neg Bus to Case, Pos Plate Penetrated Separator and Shorted to Neg Plate, Pinpoint Migration Through Separator, Blisters on Pos Plates, Separator Deteriorated.

* FAILED DURING THIS REPORTING PERIOD

TEST NUMBER	DEPTH OF DISCHARGE (%)	TEST TEMPERATURE (HOURS)	CELL NUMBER	TEST POSITION IN PACK	CYCLES TESTED	CELL TYPE:	FAILURE ANALYSIS	
							NICKEL-CADMIUM	GOULD 20 AMPERE-HOUR
98	25%	1.5	77	5	3556	Low Volt Disch, Low Volt Chg, Separator Deteriorated, Neg Plate Material Penetrated Separator, Two Pos Plates Not Welded to Tabs.		
					4017	Low Volt Disch, Low Volt Chg, High Pressure Bulge, Pieces of Loose Neg Plate Material Between Plates, Migration of Neg Plate Material, Separator Deteriorated, Short Through Separator at Bottom of Plates Where Tape Holds Plates Together.		
					*10641	Low Volt Disch, Low Volt Chg, High Pressure Bulge, Migration of Neg Plate Material, Short Between Pos and Neg, Separator Completely Deteriorated.		
105	25%	3.0	77	40	4306	Low Volt Disch, Low Volt Chg, Still Under Pressure When Opened, Hot Spots Around Pinpoint Penetration, Deep Penetration by Blisters on Pos Plate, Separator Deteriorated.		
					23	*5580	Low Volt Disch, Low Volt Chg, Deposit on Pos Term, Still Under Pressure When Opened, Migration of Neg Plate Material, Short Between Pos and Neg Plates, Separator Completely Deteriorated.	
					41	*5690	Low Volt Disch, Low Volt Chg, Still Under Pressure When Opened, Weak Weld on Comb to Plate, Migration of Neg Plate Material, Separator Deteriorated.	
108	15%	3.0	81	2	4033	Shorted on Cycling, Still Under Pressure When Opened, Several Shorts Caused by Small Pieces of Metal Between Plates, Blistering on Pos Plates, Separator Deteriorated.		
					40*	82	4233	Shorted During Cycling, Still Under Pressure When Opened, Loose Pieces of Pos Plate Material Between Plates, Pinpoint Penetration, Blistering on Pos and Neg Plates, Separator Deteriorated, Short Between Pos Plate and Neg Tab at Top of Cell.

CELL TYPE: Gulton 20 Ampere-Hour			
FAILURE ANALYSIS	Nickel-Cadmium		
CYCLES COMPLETED			
POSITION IN PACK			
CYCLE NUMBER			
TEST TEMPERATURE			
ORBIT PERIOD (HOURS)			
DEPTH OF DISCHARGE			
PACK NUMBER			
77	15%	3.0	40°
			40°
			40°
			0°
102	15%	3.0	

Shorted on Cycle, Deposit on Neg Term, Concave Sides, Migration
 of Neg Plate Material, Separator Completely Deteriorated.

 Shorted on Cycle, High Pressure Bulge, Still Under Pressure
 When Opened, Migration of Neg Plate Material, Short Between
 Pos and Neg Plates at Top of Plate, Separator Completely
 Deteriorated.

 Shorted on Cycle, Deposit on Pos and Neg Term, High Pressure
 Bulge, Migration of Neg Plate Material, Short Between Pos and
 Neg Plates, Separator Completely Deteriorated.

 Volt Fell Suddenly at End of Chg, Burn Spots at Busses, Concave
 Around Spots, End Neg Pushed Into Pos Tab.

CELL TYPE: General Electric 12.0 Ampere-Hour						
FAILURE ANALYSIS	Nickel-Cadmium					
NUMBER OF CYCLES	COMPLETED					
TEST TEMPERATURE	CELL TEMPERATURE					
DEPTH OF DISCHARGE (%)	DEPTH PERIOD (HOURS)					
PACK NUMBER	DISCHARGE					
82	25%	1.5	25°	430	2	7527
124	25%	1.5	0°	410	5	3037

Low Volt Disch, Normal Volt Chg, Pierced Separator Caused By Rough Place at Top Edge of Neg Plate, Neg Plate Material Migrated, Separator Deteriorated.

CELL TYPE:	Sonotone 3.0 Ampere-Hour		
FAILURE ANALYSIS	Nickel-Cadmium		
CYCLES COMPLETED	1630	Low Volt Disch, Normal Volt Chg, Cell Very Dry, Capacity Decay Due to Insufficient Electrolyte, Migration of Plate Material Around Tab and Scoring Areas.	
POSITION IN PACK			
CELL NUMBER	A3553	3	
TEST TEMPERATURE	25°		
ORBIT PERIOD (HOURS)	1.5		
DEPTH OF DISCHARGE	40%		
PACK NUMBER	202		

CELL TYPE: Gulton 5.0 Ampere-Hour (NIMBUS)						
PACK NUMBER	DEPTH OF DISCHARGE (HOURS)	TEST TEMPERATURE	CYCLE NUMBER	POSITION IN PACK	COMPLETED CYCLES	FAILURE ANALYSIS
123	25	1.5	40	291	3	2422 Shorted During Cycling, Neg Plate Not Welded To Case, Loose Neg Plate Material at Center of Core, Migration of Neg Plate Material, Separator Deteriorated, Ceramic Short.
318	25	1.5	25	278	2	*4863 Shorted During Cycling, Pos Tab Touched Top of Neg Plate Shorting Out Cell, Burned Pos Tab, Weak Weld Neg Tab to Case, Migration of Neg Plate Material, Separator Deteriorated.

<u>CELL TYPE: Gulton 5.6 Ampere-Hour (Folded Neoprene Seal)</u>					
FAILURE ANALYSIS					Nickel-Cadmium
PACK NUMBER	276	DISCHARGE CAPACITY (HOURS)	25%	TEST TEMPERATURE (°)	25°
ORBIT PERIOD	1.5	DISCHARGE TIME (HOURS)	1.5	CELL NUMBER	115
PACK POSITION IN PACK	2	TEST NUMBER	2	POSITION IN PACK	
CYCLES COMPLETED	*2025	TEST CYCLES		TEST CYCLES	
Failure Analysis:					Low Volt Disch, High Volt Chg, Deposit Around Top To Side Weld, Pos Tab Burned and Broken, Separator Deteriorated.

CELL TYPE: Gulton 5.6 Ampere-Hour (Nonfolded Neoprene Seal)						
PACK NUMBER	TEST TEMPERATURE	ORBIT PERIOD (hours)	DEPTH OF DISCHARGE	CELL NUMBER	FAILURE ANALYSIS	
					TEST POSITION	CYCLES
230	25°	1.5	40°	111	5	*1195

Low Volt Disch, Low Volt Chg, Deposit Around Top to Side Weld, Leaked, Lost 1.6 gm, Weak Weld Pos Tab to Term, Migration of Neg Plate Material, Separator Deteriorated.

Low Volt Disch, High Volt Chg, Still Under Pressure When Opened, Burned Pos Tab, Separator Deteriorated.

Low Volt Disch, High Volt Chg, Still Under Pressure When Opened, Pos Tab Burned and Broken, Migration of Neg Plate Material, Separator Deteriorated.

CELL TYPE: Gulton 6.0 Ampere-Hour (HSI)						
TEST NUMBER	TEST TEMPERATURE	CYCLES COMPLETED	FAILURE ANALYSIS		POSITION IN PACK	CELL NUMBER
			NUMBER OF DISCHARGES	TIME OF DISCHARGE (HOURS)		
218	40°	1.5	25°	5325	2	*5364
238	25%	1.5	40°	5321	5	4350
			40°	5318	2	*5184
			40°	5320	4	*5766

Low Volt Disch, Low Volt Chg, Ceramic Short, Nickel Plating Flaked Off at Pos Term, Pinpoint Migration Through Separator Blisters on Pos Plates, Separator Deteriorated.

Low Volt Disch, Low Volt Chg, Still Under Pressure When Opened, Pos Tab Burned, Migration of Neg Plate Material, Blistering on Pos Plate, Separator Completely Deteriorated, Neg Plate Shorted Through Separator.

Low Volt Disch, Low Volt Chg, Deposit on Pos Term, Burned Pos Tab, Ceramic Short, Migration of Neg Plate Material, Blisters on Pos Plate, Separator Deteriorated.

Low Volt Disch, Normal Volt Chg, Burned Pos Tab, Ceramic Short, Migration of Neg Plate Material, Blisters on Pos Plate, Separator Deteriorated.

CELL TYPE: Gulton 6.0 Ampere-Hour (Third Electrode)						
PACK NUMBER	DEPTH OF DISCHARGE (%)	TEST TEMPERATURE (°C)	TEST CYCLE NUMBER	POSITION TEST CYCLES	FAILURE ANALYSIS	NICKEL-CADMIUM
11	25%	1.5	25°	147	3 271.8	Third Electrode Shorted to Pos, Ceramic Short, Blistering on Pos Plates, Separator Deteriorated, Leaked, Lost 1.3 gm.
					*5022	Shorted on Cycling, Deposit on Neg Term Seal, Under Pressure When Opened, Migration of Neg Plate Material, Blisters on Pos Plate, Short Through Separator Between Pos and Neg Plate Near Top of Cell, Separator Deteriorated.
					2900	Third Electrode Shorted to Neg Plate, Migration of Neg Plate Material, Shorted Out Third Electrode, High Pressure Bulge, Still Under Pressure When Opened, Lost 1.4 gm.
					140	3 2900
					130	5 2993
					0°	Low Volt Disch, High Volt Chg, Deposit on Neg Terminal, Leaked, Lost 8.7 gm, High Pressure Bulge, Large Deposits of Loose Active Neg Plate Material, Hot Spots Around Pinpoint Penetration, Blistering on Pos Plates.
					0°	*5070 141
					4	Low Volt Disch, High Volt Chg, Leaked, Lost 5.9 gm, Separator Very Dry, Migration of Neg Plate Material, Blisters on Pos Plates.

	<u>CELL TYPE:</u>	Gulton 12.0 Ampere-Hour
	<u>FAILURE</u>	Nickel-Cadmium
	<u>ANALYSIS</u>	
3C1	CYCLES COMPLETED	
		*5586
	POSITION IN PACK	
	CELL NUMBER	4
	TEST TEMPERATURE	0°
	ORBIT PERIOD (HOURS)	1.5
	DEPTH OF DISCHARGE	25%
	PACK NUMBER	3C1
	Failure Analysis	Low Volt Disch, High Volt Chg, High Pressure Bulge, Leaked, Lost 9.6 gm, Migration of Neg Plate Material, Blistered on Pos Plates, Separator Very Dry.

Failure Analysis							
Cell Type:	Gulton 50 Ampere-Hour						
	Nickel-Cadmium						
Cycle Number	Cell Temperature (Test)	Orient Period (Hours)	Temperature Test	Cell Number	Position In Pack	Cycles Completed	Cell Type: Failure Analysis
95	25%	1.5	0°	109	3	2643	Shorted Out While Cycling, All Plates Shorted at Bottom Center, Separator Very Dry and Stiff From Heat, Blistering on Pos Plate.
			0°	107	5	2938	Shorted Out While Cycling, Short Between Plates at Center Near Bottom of Plates, Separator Iry, Small Amount of Neg Plate Material Migration on Separator.
			0°	115	1	3227	Low Volt Disch, High Volt Chg, Separator Impregnated with Neg Plate Material, Large Blisters on Pos Plate, One Neg Plate Stuck to Can.
			40°	119	2	1873	Low Volt Disch, Low Volt Chg, Separator Decomposed, Hot Spots Through Separator Shorted Out Several Plates, High Pres Bulge, Still Under Pressure When Opened.
			40°	118	3	1873	Went Dead During Shutdown, Separator Decomposed, Several Small Hot Spots on Each Plate, Outside Neg Plates Stuck to Case, High Pres Bulge, Deposit Around Ceramic Seal of Pos Terminal.
			40°	117	4	1873	Went Dead During Shutdown, Separator Decomposed, Neg Plate Stuck to Case, High Pres Bulge, Still Under Pressure When Opened.

CELL TYPE: Delco 25 Ampere-Hour			
FAILURE ANALYSIS			
NUMBER CYCLES COMPLETED	32	Cell Blew Up, Pack Returned to Manufacturer.	
POSITION IN PACK	80	Returned to Manufacturer for Analysis.	
TEST NUMBER	120	Returned to Manufacturer for Analysis.	
TEST TEMPERATURE			
OPERATION TIME (HOURS)			
DISCHARGE NUMBER			
PACK NUMBER			

CELL TYPE:	Delco 40 Ampere-Hour		
FAILURE ANALYSIS	Silver-Zinc		
PART NUMBER	275	25%	DEGREE OF DISCHARGE
ORBIT PERIOD (HOURS)	24.0	25°	TEST TEMPERATURE
CELL NUMBER			POSITION IN PACK
CYCLES COMPLETED	139		Returned to Manufacturer for Analysis.
CELL TYPE:	Delco 40 Ampere-Hour		

AVERAGE-SECUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	MAX NUMBER (Hour)	COUNT PERIOD (Hour)	HEAT OF DISCHARGE	TEMPERATURE °C	PRECONDITIONING										CAPACITY-CHEMOS AFTER 88-DAY INTERVALS										
					88 DAYS	SECOND 88 DAYS	THIRD 88 DAYS	FOURTH 88 DAYS	FIFTH 88 DAYS	SIXTH 88 DAYS	SEVENTH 88 DAYS	EIGHTH 88 DAYS	NINTH 88 DAYS	FIFTEEN 88 DAYS	TWENTIETH 88 DAYS	CYCLES TO FAILURE									
G.E.	63	1.5	15	0	3.18	3.18	3.12	3.05	3.03	3.05	2.90	2.90	3.30	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	
3 A.H.	64	25	0	3.50																					
	15	25	25	4.00																					
	16	40	25	4.08																					
	17	15	50/40	1.65	3.48	(779)	2.10	1.53	1.25	1.17	0.70	-	-	-	-	-	-	-	-	-	-	-	-	5013	
	18	39	25	50/40	1.80	2.50 (1440)	0.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8109	
	19	40	25	50/40	1.80	2.50 (1440)	0.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2569	
	20	67	3	15	0	3.63																			
	21	68	3	25	0	3.50																			
	22	19	25	25	3.93																				
	23	20	40	25	3.78																				
	24	43	15	50/40	1.77	2.13 (320)	2.20	1.61	1.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5410	
	25	44	25	50/40	1.60	2.00 (327)	1.35	1.19	1.15	1.10	0.95	0.88	-	-	-	-	-	-	-	-	-	-	-	2656	
	26	67	3	15	0	3.62																			
	27	68	3	25	0	3.33																			
	28	19	25	25	4.00																				
	29	20	40	25	3.94																				
	30	43	15	50/40	1.53	2.63 (779)	2.07	1.95	1.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4487	
	31	44	25	50/40	1.55	2.07 (1434)	1.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	32	67	3	15	0	3.27																			
Gould	51	1.5	15	0	3.62																				
3.5 A.H.	52	25	0	3.33																					
	53	25	25	4.00																					
	54	40	25	3.94																					
	55	27	15	50/40	1.53	2.63 (779)	2.07	1.95	1.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3164	
	56	28	25	50/40	1.55	2.07 (1434)	1.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4485	
	57	67	3	15	0	3.27																			
	58	68	3	25	0	3.50																			
	59	15	25	4.31																					
	60	40	25	4.29																					
	61	15	50/40	1.60	1.31 (328)	1.75	1.95	1.98	2.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3494	
	62	25	50/40	1.55	1.66 (495)	1.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2524	
	63	25	50/40	1.55	1.66 (495)	1.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	975	

* Preconditioning at change to 40° C. Number of cycles completed at 50° C is in parentheses.

** Still at 50° C.

AMPERE-HOUR CAPACITIES ON RECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	PACK NUMBER 3 A.H.	ORBIT PERIOD (Hours)	PACK NUMBER 3 A.H.	DEPTH OF DISCHARGE	TEMPERATURE °C	CAPACITY CHECKS AFTER 88-DAYS INTERVALS		CYCLES TO PACK FAILURE
						INITIAL	* (See Note)	
G.E.	63	1.5	15	0	2.65	3.10	2.70	10382
	64		25	0				
	15	25	25	25				
	16	40	25	25				
	39	15	50/40	50/40				
	40	25	50/40	50/40				
G. E.	67	3	15	0	2.95			
	68		25	0	2.78	2.75		
	19	25	25	25	1.12	2.00		
	20	40	25	25				
	43	15	50/40	50/40				
	44	25	50/40	50/40				
Gould	51	1.5	15	0	2.93	3.21		
3.5 A.H.	52	25	0	25	2.42			
	3	25	25	25				
	4	40	25	25				
	27	15	50/40	50/40				
	28	25	50/40	50/40				
Gould	55	3	15	0	3.60	3.15		
3.5 A.H.	56	25	0	25	2.92	2.83		
	7	25	25	25				
	8	40	25	25				
	31	15	50/40	50/40				
	32	25	50/40	50/40				

AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

PACK NUMBER	OPERATING PERIOD (Hours)	TEMPERATURE °C.	DISCHARGE RATE A.H.	PRECONDITIONING * (See Note)	CAPACITY CHECKS AFTER 88-DAY INTERVALS								CYCLES TO PACK FAILURE
					88 DAYS	88 DAYS	88 DAYS	88 DAYS	88 DAYS	88 DAYS	SEVENTH 88 DAYS	EIGHTH 88 DAYS	
Sonotone 5 A.H.	49	1.5	15	0	5.45	5.54	4.96	4.79	4.71	4.50	4.54	4.08	7.08
	50	25	0	5.04	4.96	4.58	4.25	3.79	3.67	3.67	3.46	3.25	11.75
	25	25	5.42		3.67	2.33	2.88	2.79	2.21	2.58	2.80	2.46	66.71
	40	25	6.42		4.38	4.17	3.25	3.00					9.328
	15	50/40	3.08	3.63 (703)	2.35	1.93	2.04	1.17	1.17	1.54	0.83		
	25	50/40	3.17	3.17 (445)	2.75	2.93							3625
Sonotone 5 A.H.	53	3	15	0	5.67	5.79	5.42	5.33	5.50	5.54	5.00	4.62	
	54	25	0	4.92	3.96	4.13	3.96	3.75	3.39	3.38	3.13		
	25	25	5.71		4.58	3.04	2.04	2.13	2.13	2.08	2.21	3.25	
	40	25	5.83		4.50	3.29	3.25	2.92	2.83	2.33	2.00	2.13	5.211
	15	50/40	3.33	4.92 (223)	2.75	2.38	2.42	2.08	1.96	1.29	1.79		5.975
	25	50/40	3.75	3.50 (183)	1.88	2.88	2.38	1.67	1.31				4.141
Gulton 6 A.H.	61	1.5	15	0	5.00	5.10	5.40	4.45	3.15	2.60	2.15	1.75	---
	62	25	0	5.00	4.75	3.80	4.35	3.55	3.30	3.30	3.95	3.8	
	25	25	5.80		3.75	2.85	2.70						4.021
	40	25	6.40		3.45								2.086
	15	50/40	2.75	3.60 (239)	1.70	1.95	1.85	1.00					6.064
	25	50/40	2.65	2.90 (114)	1.55								1377
Gulton 6 A.H.	65	3	15	0	4.50	5.45	5.35	5.15	4.50	4.50	5.15	4.10	
	66	25	0	4.25	5.00	3.50	2.50	3.80	3.90	3.45			44.4
	25	25	5.80		3.65	3.45	2.50	2.30					2.835
	40	25	4.55		4.95	3.16							15.50
	15	50/40	2.75	4.55 (239)	3.05	1.63							1.689
	25	50/40	2.60	3.80 (96)	2.10	2.35	1.85	1.50	1.50	1.30			4.133

* Preconditioning at change to 40° C. Number of cycles completed at 50° C is in parentheses.

AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	PACK NUMBER	CAPACITY CHECKS AFTER 80-DAY INTERVALS										PACK FAILURE CYCLE TO
		15	25	35	45	55	65	75	85	95	105	
Sonotone	49	1.5	0	4.04	4.13							
S A.H.	50	25	0	3.58	3.33							
	1	25	25	--	--							11745
	2	40	25	--	--							6671
	25	15	50/40	--	--							9328
	26	25	50/40	--	--							3625
Sonotone	53	15	0	4.17	4.63							
S A.H.	54	25	0	2.50	2.75							
	5	25	3.42	3.67	--							
	6	40	25	--	--							5211
	29	15	50/40	--	--							5975
	30	25	50/40	--	--							4141
Gulton	61	1.5	0	--	--							
S A.H.	62	25	0	3.95	3.80							
	13	25	25	--	--							4021
	14	40	25	--	--							2086
	37	15	50/40	--	--							6064
	38	25	50/40	--	--							/377
Gulton	65	1.5	0	4.65	3.70							
S A.H.	66	25	0	--	--							
	17	25	25	--	--							4414
	18	40	25	--	--							2985
	41	15	50/40	--	--							1550
	42	25	50/40	--	--							1689
												4133

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AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

PACK FAILURE
CYCLES TO

TYPE	PACK NUMBER	ORIGIN PERIOD (Hours)	DISCHARGE DEPTH OF DISCHARGE	TEMPERATURE °C.	PRECONDITIONING						CAPACITY CHECKS AFTER 88-DAY INTERVALS						CYCLES TO PACK FAILURE
					INITIAL	(See Note)*	TRSF 88	SECOND 88	THIRD 88	FOURTH 88	FIFTH 88	SIXTH 88	SEVENTH 88	EIGHTH 88	SEVENTH 88	EIGHTH 88	
G.E.	110	1.5	15	0	13.9	12.7	10.4	13.0	12.5	14.1	11.5	13.7	14.3	13.1	13.1	13.1	10828
	124		25	0	14.2	13.5	12.9	12.8	11.4	11.5	11.7	10.8	8.20	8.20	8.20	8.20	4020
12 A.H.	82		25	25	15.2	8.00	5.55	5.50	5.40	5.70	5.00	4.40	4.40	4.40	4.40	4.40	4853
	96		40	25	14.8	6.00	7.65	5.00	4.70	5.00	4.90	5.00	4.90	4.80	4.80	4.80	4020
	85		15	50/40	6.80	8.20	(334)	5.00	4.70	5.00	4.90	5.00	4.90	4.80	4.80	4.80	9710
	99		25	50/40	6.90	6.00	(195)	4.90	5.20	4.40	5.70	5.10	5.10	4.00	4.00	4.00	4424
G.E.	111	3	15	0	14.2	13.2	10.7	11.0	12.1	12.9	12.0	11.4	11.4	11.2	11.2	11.2	10641
	125		25	0	14.6	13.0	12.1	11.9	12.2	12.9	11.7	11.2	11.2	11.3	11.3	11.3	2980
12 A.H.	83		25	25	15.2	11.7	8.20	6.13	5.20	4.80	4.40	5.10	5.10	5.60	5.60	5.60	2937
	97		40	25	14.9	5.60	5.86	7.90	8.20	6.80	5.50	5.70	5.70	5.02	5.02	5.02	5213
	86		15	50/40	7.10	8.20	(205)	6.30	3.70	4.00	3.50	2.90	2.30	4.40	3.70	3.70	1574
	100		25	50/40	7.00	9.80	(70)	3.80	4.70	5.70	5.10	4.00	4.00	4.00	4.00	4.00	4424
Gould	84	1.5	15	0	22.5	27.7	26.5	24.2	24.7	21.7	22.3	19.8	19.0	19.0	19.0	19.0	19.0
	20 A.H.		25	0	23.1	21.2	15.2	18.7	17.2	17.5	13.5	13.5	13.5	13.5	13.5	13.5	10641
	98		25	25	25.0	18.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	2980
	104		40	25	24.7	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	2937
	118		15	50/40	9.67	6.83	(183)	15.7	15.3	12.5	12.4	12.4	12.4	12.4	12.4	12.4	5213
	112		25	50/40	9.00	13.9	(1326)	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	1574
Gould	80	3	15	0	23.0	23.2	21.5	20.3	25.8	19.7	18.3	16.7	16.5	16.5	16.5	16.5	16.5
	20 A.H.		25	0	23.0	17.5	25.0	18.2	18.8	17.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5
	94		25	25	23.3	23.5	22.2	21.3	21.2	20.7	10.5	10.5	10.5	10.5	10.5	10.5	10.5
	105		40	25	24.8	24.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
	119		15	50/40	9.50	9.67	(47)	11.8	14.8	16.8	15.2	12.3	12.3	12.3	12.3	12.3	12.3
	108		25	50/40	9.33	7.50	(756)	8.17	8.17	8.17	8.17	8.17	8.17	8.17	8.17	8.17	8.17
	122																4273
																	983

* Preconditioning at change to 40° C. Number of cycles completed at 50° C is in parentheses.

** Still at 50° C.

AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	PACK NUMBER	ORBIT PERIOD (Hours)	DEPTH OF DISCHARGE	TEMPERATURE °C	CAPACITY CHECKS AFTER 88-DAY INTERVALS												CYCLES TO FAILURE
					88 DAY	90 DAY	100 DAY	110 DAY	120 DAY	130 DAY	140 DAY	150 DAY	160 DAY	170 DAY	180 DAY	190 DAY	
G.E.	110	1.5	15	0	11.9	12.0	-	-	-	-	-	-	-	-	-	-	108.28
12 A.H.	124	25	0	7.20	16.5	-	-	-	-	-	-	-	-	-	-	-	40.20
	82	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	97.0
	96	40	25	-	-	-	-	-	-	-	-	-	-	-	-	-	48.53
	85	15	50/40	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	99	25	50/40	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G.E.	111	3	15	0	10.0	10.3	-	-	-	-	-	-	-	-	-	-	106.41
12 A.H.	125	25	0	10.9	10.9	-	-	-	-	-	-	-	-	-	-	-	29.20
	83	25	25	7.20	6.80	-	-	-	-	-	-	-	-	-	-	-	29.37
	97	40	25	-	-	-	-	-	-	-	-	-	-	-	-	-	52.13
	86	15	50/40	3.10	3.40	-	-	-	-	-	-	-	-	-	-	-	15.74
	100	25	50/40	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gould	84	1.5	15	0	18.5	16.3	-	-	-	-	-	-	-	-	-	-	-
20 A.H.	98	25	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	104	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	118	40	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	112	15	50/40	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	126	25	50/40	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gould	80	3	15	0	17.2	15.0	-	-	-	-	-	-	-	-	-	-	56.90
20 A.H.	94	25	0	14.7	15.2	-	-	-	-	-	-	-	-	-	-	-	17.93
	105	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	42.73
	119	40	25	-	-	-	-	-	-	-	-	-	-	-	-	-	9.93
	108	15	50/40	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	122	25	50/40	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Preconditioning at change to 40° C. Number of cycles completed at 50° C is in parentheses.

**Still at 50° C.

AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	PACK NUMBER	ORBIT PERIOD (Hours)	NET WEIGHT OF DISCHARGE	TEMPERATURE C.	INITIAL	PRECONDITIONING		CAPACITY CHECKS AFTER 88-DAY INTERVALS						CYCLES TO FAILURE		
						(See Note)	*	FIRST 88 DAYS	SECOND 88 DAYS	THIRD 88 DAYS	FOURTH 88 DAYS	FIFTH 88 DAYS	SIXTH 88 DAYS	SEVENTH 88 DAYS	EIGHTH 88 DAYS	
Gulton	101	1.5	15	0	17.2			12.5	5.67							3631
20 A.H.	115	25	0	17.7				11.2								2288
	73	25	25	23.3				7.17	9.50	7.83	8.67	8.83				7763
	87	40	25	23.3												627
	76	15	50/40	10.3	13.8	(172)	6.50	4.83	5.50	4.67	5.00	5.12				9348
	90	25	50/40	9.00	11.3	(65)	6.00	10.3	7.33*							4045
Gulton	102	3	15	0	16.7			18.8	25.2	20.3	19.5	17.3	17.0	15.0	14.8	
20 A.H.	116	25	0	21.7				20.7	21.8	19.3	17.5	15.2	13.2	13.2		
	74	25	25	20.3				6.17	7.17							1754
	85	40	25	19.8												358
	77	15	50/40	9.50	12.7	(71)	7.33	5.33	4.83	5.33	4.67	5.00	5.17	6.16	6.032	
	91	25	50/40	9.17	10.3	(47)	6.67	6.67	7.67	6.83	7.17	5.50				4480
Yardney	57	24	50	0	13.8				8.60							106
12 A.H.	33	50	40	13.5					12.0							210
Gulton	79	24	50	25	6.60					3.55	4.40	4.25	4.05	3.50		545
6 A.H.	93	24	50	40***	13.0											
G.E.	12	A.H.														
Gulton	95	1.5	25	0	54.6											3227
50 A.H.	123		15	40	27.9											1874

* Preconditioning at change to 40° C. Number of cycles completed at 50° C is in parentheses.

** Two cells only pack failed during capacity check.

*** Changed from 25° to 40° C ambient after 173 cycles.

AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	PACK NUMBER	CIRCUIT PERIOD (hours)	DEPTH OF DISCHARGE	TEMPERATURE °C	CAPACITY CHECKS AFTER 88-DAY INTERVALS		CYCLES TO PACK FAILURE
					SIXTEENTH	EIGHTEENTH	
Gulton 20 A.H.	101	1.5	15	0	88 DAYS	88 DAYS	NINETEENTH
	115		25	0			
	73		25	25			
	81		40	25			
	76		15	50/40			
	90		25	50/40			
Gulton 20 A.H.	102	3	15	0	10.1	10.0	
	116		25	0	13.0	12.0	
	74		25	25			
	88		40	25			
	77		15	50/40			
	91		25	50/40			
Yerdney 12 A.H.	57	24	50	0			
	33		50	40			
Gulton 6 A.H.	79	24	50	25			
G.E. 12 A.H.	93	24	50	40			
Gulton 50 A.H.	95	1.5	25	0			
	123		15	40			

AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

PACK NUMBER	PACK STABILIZER	OPERATING PERIOD (Hours)	DEPTH OF DISCHARGE	TEMPERATURE °C	CAPACITY CHECKS AFTER 88-DAY INTERVALS							CYCLES TO PACK FAILURE
					SECOND 88	THIRD 88	FOURTH 88	FIFTH 88	SIXTH 88	SEVENTH 88	EIGHTH 88	
Sonotone (Triple Sealed) 3 A.H.	243 231 203 202 226 237	1.5 2.5 2.5 4.0 1.5 2.5	15 0 25 25 40 40	0 0 3.35 3.60 3.53 3.48	3.23 2.88 3.35 1.40 1.32 1.10	3.55 3.05 2.78 1.17 1.45 1.05	3.47 2.78 1.40 1.50 1.62 1.05	3.50 2.72 2.61 2.61 2.62 1.05	3.40 2.61 2.61 2.62 2.62 1.05	3.42 2.27 2.27 2.27 2.27 1.05	2145 1530 5399	
Sonotone (Stabilizer) 5 A.H.	175 289 92 322 273 287 299 312	1.5 4.0 2.5 4.0 2.5 4.0 2.5 4.0/15	25 -20 0 0 25 25 0 40	4.93 4.96 3.38 4.13 5.33 5.50 4.21 3.71	1.48 3.73 2.92 2.42 2.33 3.66 1.88 1.04	1.48 1.75 1.75 2.63 2.33 1.75 1.50 0.54	1.48 1.75 1.75 1.63 1.29 1.29 1.17 0.54	1.48 1.75 1.75 1.63 1.29 1.29 1.17 0.54	1.48 1.75 1.75 1.63 1.29 1.29 1.17 0.54	1.48 1.75 1.75 1.63 1.29 1.29 1.17 0.54	2392 388 3294	

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AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	PACK NUMBER (Column)	PACK NUMBER A.H.	ORBIT PERIOD (Hours)	DEPTH OF DISCHARGE	INITIAL TEMPERATURE °C.	FREQUENCY OF TESTING	CAPACITY CHECKS AFTER 88-DAY INTERVALS						CYCLES TO PACK FAILURE					
							SECOND 88 DAYS	THIRD 88 DAYS	FOURTH 88 DAYS	FIFTH 88 DAYS	SIXTH 88 DAYS	SEVENTH 88 DAYS	EIGHTH 88 DAYS	NINTH 88 DAYS	TENTH 88 DAYS	ELVTH 88 DAYS	CYCLES TO PACK FAILURE	
Gulton	315	1.5	15	0	5.04	3.57	4.03	4.00	3.80	4.07	4.03	4.60	4.07	3.03	3.03	3.03	3.03	
(Gulton)	326	0	25	0	4.87	4.00	3.87	3.73	3.60	3.60	3.93	3.60	3.60	3.60	3.60	3.60	3.60	
4 A.H.	204	25	25	25	4.63	2.47	2.07	1.83	1.80	3.67	1.70	1.60	1.60	1.60	1.60	1.60	1.60	
214	25	40	25	500	5.00	2.00	2.07	1.87	1.93	1.93	1.93	1.70	1.70	1.70	1.70	1.70	1.70	
228	40	40	40	4.20	1.77	1.67	1.47	1.53	1.53	1.75	1.67	1.70	1.70	1.70	1.70	1.70	1.70	
240	40	40	40	3.37	1.17	1.13	1.30	1.03	1.30	1.30	1.01	1.00	1.00	1.00	1.00	1.00	1.00	
Gulton	216	1.5	15	0	14.0	14.0	14.1	14.2	13.7	13.7	13.7	12.4	12.4	12.4	12.4	12.4	12.4	
(Gulton)	301	0	25	0	14.2	14.5	14.4	14.2	13.0	11.9	11.9	11.0	11.0	11.0	11.0	11.0	11.0	
12 A.H.	227	25	25	25	14.1	5.90	3.50	4.10	4.20	4.80	4.80	5.10	5.10	5.10	5.10	5.10	5.10	
	296	25	40	25	13.3	4.70	5.40	5.00	3.40	3.40	3.40	3.20	3.20	3.20	3.20	3.20	3.20	
	78	15	40	25	6.80	4.30	3.10	3.30	3.40	3.40	3.40	3.20	3.20	3.20	3.20	3.20	3.20	
	290	40	40	25	11.4	5.40	3.60	3.70	3.60	3.60	3.60	3.20	3.20	3.20	3.20	3.20	3.20	
Gulton	213	1.5	25	0	7.30	7.30	7.25	7.25	7.00	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	
(HSI)	218	40	25	6.90	3.00	3.60	3.20	3.20	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
6 A.H.	238	25	40	5.00	1.75	2.00	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	
Yardney	9	24	42	25	14.0													
(Aggr.)																		

AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

PACK NUMBER (Nimbus)	ORBIT PERIOD (hours)	DEPTH OF DISCHARGE	TEMPERATURE °C	CAPACITY CHECKS AFTER 88-DAY INTERVALS								CYCLES TO FAILURE
				SECOND 88	THIRD 88	FOURTH 88	FIFTH 88	SIXTH 88	SEVENTH 88	EIGHTH 88	NINTH 88	
Gullion 6 A.H. (Third electrode)	59	1.5	25	0	7.15	7.00	6.20	6.75	6.50	6.85		5754
Gullion 6 A.H. (Third electrode)	71	1.5	40	0	7.25	7.50	7.00	5.65				7743
Gullion 6 A.H. (Third electrode)	11	1.5	40	25	7.10	3.15	6.20	4.35	3.95	2.75		
Gullion 6 A.H. (Third electrode)	23	1.5	25	25	5.95	3.85	5.20	4.00	4.45	4.20	3.85	
Gullion 6 A.H. (Third electrode)	35	1.5	40	25	2.95	2.25	1.60	1.85	2.00	2.75		
Gullion 6 A.H. (Third electrode)	47	1.5	25	40	3.95	2.10	2.05	2.25				5521
Gullion 6 A.H. (Third electrode)	59	1.5	25	0	7.15	7.00	6.20	6.75	6.50	6.85		
Gullion 6 A.H. (Third electrode)	71	1.5	40	0	7.25	7.50	7.00	5.65				
Gullion 6 A.H. (Third electrode)	11	1.5	40	25	7.10	3.15	6.20	4.35	3.95	2.75		
Gullion 6 A.H. (Third electrode)	23	1.5	25	25	5.95	3.85	5.20	4.00	4.45	4.20	3.85	
Gullion 6 A.H. (Third electrode)	35	1.5	40	25	2.95	2.25	1.60	1.85	2.00	2.75		
Gullion 6 A.H. (Third electrode)	47	1.5	25	40	3.95	2.10	2.05	2.25				
G.E. (Nimbus) 5 A.H.	103	1.5	0	5.42	5.08	5.38	5.58	5.42	5.59			
G.E. (Nimbus) 5 A.H.	107	1.5	25	0	5.21	5.50	5.46	5.33	5.17	5.42		
G.E. (Nimbus) 5 A.H.	106	1.5	25	4.67	4.13	4.13	3.50	3.21	3.09			
G.E. (Nimbus) 5 A.H.	304	2.5	25	5.58	3.58	2.54	2.54	1.75	2.04			
G.E. (Nimbus) 5 A.H.	113	1.5	40	3.67	2.42	2.25	1.83	1.83	1.92			
G.E. (Nimbus) 5 A.H.	114	1.5	40	3.83	2.25	1.71	1.71	1.63	1.92			
G.E. (Nimbus) 5 A.H.	69	1.5	25	0	1.50	1.5	1.5	1.5	1.5	1.5		
G.E. (Nimbus) 5 A.H.	72	1.5	25	25	10.2							1698
G.E. (Nimbus) 5 A.H.	12	1.5	25	25	9.10							665
G.E. (Nimbus) 5 A.H.	24	1.5	25	25	9.10							
G.E. (Nimbus) 5 A.H.	36	1.5	25	25	9.10							
G.E. (Nimbus) 5 A.H.	48	1.5	25	25	9.10							
G.E. (Nimbus) 5 A.H.	25/40	40/0	5.30*	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
G.E. (Nimbus) 5 A.H.	25/40	40/0	5.30*	1.5	1.5	1.5	1.5	1.5	1.5	1.5		

* At 40° C.

AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

PACK NUMBER	TYPE	CAPACITY CHECKS AFTER 88-DAY INTERVALS										CYCLES TO PACK FAILURE
		FIRST 88 DAYS	SECOND 88 DAYS	THIRD 88 DAYS	FOURTH 88 DAYS	FIFTH 88 DAYS	SIXTH 88 DAYS	SEVENTH 88 DAYS	EIGHTH 88 DAYS	NINTH 88 DAYS	TENTH 88 DAYS	
Gulton	244	1.5	25	-20	4.01	4.67	4.34					
(Neoprene	200	25	0	6.25	5.32	5.09						
seal	276	25	25	5.60	1.63	1.59						
(folded)	242	25	40	4.39	1.19	1.35						
5.6 A.H.												
Gulton	232	1.5	25	-20	4.51	4.57	4.67					
(Neoprene	390	25	0	6.58	5.88	5.50						
seal, non-	396	25	25	6.30	2.33	2.24	1.87					
(folded)	230	25	40	4.90								
5.6 A.H.												
Yardney	257	24	20	0	3.67	1.83	1.33					
(C-3	21	20	25	4.93	.76							
Separator)	45	20	40	6.02								
5 A.H.												
Yardney	409	20	25	5.25								
(Radiated	233	20	25	5.20	5.85	6.13	6.35					
Separator)												
5 A.H.												
Yardney	69	20	25	5.38	4.95	4.17	3.20					
(Pellon Control Separator)												
5 A.H.												

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AMPERE-HOUR CAPACITIES ON PRECONDITIONING AND CAPACITY CHECK CYCLES

TYPE	PACK NUMBER	OPERATING PERIOD (Hours)	DEPTH OF DISCHARGE	TEMPERATURE °C	INITIAL FREQUENCY	TICKLING	FIRST 88 DAYS	SECOND 88 DAYS	THIRD 88 DAYS	FOURTH 88 DAYS	FIFTH 88 DAYS	SIXTH 88 DAYS	SEVENTH 88 DAYS	NINTH 88 DAYS	TWENTH 88 DAYS	THIRTY 88 DAYS	CYCLES TO PACK FAILURE	
							CAPACITY CHECKS AFTER 30-DAY INTERVALS											
De.co. (Silver-Zinc) 25 A.H.	609	24	40	25	29.7	30.5	22.3											119
Gulton (Neoprene steel folded) 3.6 A.H.	239	1.5	40	25	3.06	2.07	2.01	2.55	1.71									
Yardney (Silver-Cadmium) 12 A.H.	185	1.5	25	-20	8.70	1.30	13.7											114

TYPE	PACK NUMBER	DEPTH OF DISCHARGE (Hours)	DEPTH OF RECHARGE	TEMPERATURE °C	INITIAL	*See Note)	PRECONDITIONING		CAPACITY CHECKS AFTER 86-DAY INTERVALS		CYCLES TO PACK FAILURE
							1ST 86	2ND 86	3RD 86	4TH 86	
Gulton	174	1.5	25	-20	1.73		0.54	0.42			
1.25 A.H.	306	2.5	0	0	1.78		1.76	1.69			
	198	6.0	0	0	1.83		1.60	1.53			
	368	2.5	-20	1.22			0.52	0.52			
G.E., G.A.H.	338	1.5	25	40	1.72						
Gulton											

MFR.	CAP. (AH)	PACK NO.	TEMP. °C	ORBIT		DEPTH OF DISCH.	CHG. %	PERCENT OF RECHG.	CHG. VOLT LIMIT	CYCLES COVERED		CELLS IN PACK		
				PERIOD (HRS)	DISCH. %					INITIAL	FINAL	DIFF	INITIAL	
U. S. (pages 82-96)	63	0	0	0.5	1.0	15	115	1.55	14918	15388	470	10	9	9
	64	0	0	"	"	25	"	"	15193	15672	479	"	10	10
	75	25	"	"	"	25	"	149	FAILED	10392	"	"		
	16	25	"	"	"	40	"	"	FAILED	5013	"	"		
	39	40	"	"	"	15	160	145	FAILED	8109	"	"		
	40	40	"	"	"	25	"	145	FAILED	2509	"	"		
	67	0	0	2.5	15	115	1.55	7422	7676	254	"	10	10	
	68	0	0	"	"	25	"	"	7309	7556	247	"	9	9
	19	25	"	"	"	25	"	149	7395	7649	254	"	10	10
	20	25	"	"	"	40	"	"	Failed	5410	"	"		
GOLD (pages 87-89)	43	40	"	"	"	15	160	145	Failed	2652	"	"		
	44	40	"	"	"	25	"	"	Failed	4487	"	"		
	51	0	0	1.0	15	115	1.55	15068	15547	479	"	9	9	
	52	0	0	"	"	25	"	"	Failed	13729	"	"		
	3	25	"	"	"	25	"	149	FAILED	4751	"	"		
	4	25	"	"	"	40	"	"	FAILED	3164	"	"		
	27	40	"	"	"	15	160	145	FAILED	4495	"	"		
	28	40	"	"	"	25	"	"	FAILED	1811	"	"		
	55	0	0	2.5	15	115	1.55	7470	7693	223	"	10	10	
	56	0	0	"	"	25	"	"	7447	7701	254	"	10	10
SONOTONE Pages 90-94	7	25	"	"	"	25	125	149	FAILED	4173	"	"		
	8	25	"	"	"	40	"	"	FAILED	2494	"	"		
	21	40	"	"	"	15	160	145	FAILED	2517	"	"		
	32	40	"	"	"	25	"	"	145	FAILED	975	"		
	49	0	0.5	1.0	15	115	1.55	14836	15315	479	"	8	8	
	50	0	0	"	"	25	"	"	14719	15231	512	"	7	7
	1	25	"	"	"	25	125	149	FAILED	11745	"	"		
	2	25	"	"	"	40	"	"	FAILED	6671	"	"		
	25	40	"	"	"	15	160	145	FAILED	9328	"	"		
	26	40	"	"	"	25	"	"	FAILED	3625	"	"		
SONOTONE Pages 90-94	53	0	0	2.5	15	115	1.55	7311	7565	254	"	10	10	
	54	0	0	"	"	25	"	"	7291	7545	254	"	10	10
	5	25	"	"	"	25	125	149	782	7436	254	"	8	8
	6	25	"	"	"	40	"	"	Failed	5211	"	"		
	28	40	"	"	"	15	160	145	Failed	5975	"	"		
SONOTONE Pages 90-94	30	40	"	"	"	25	"	"	Failed	4141	"	"		

MNR.	CAP. (A.E.)	ORBIT			DEPTH OF DISCH.	PERCENT OF RECH.	CHG. VOLT	PERCENT OF LIMIT	INITIAL	FINAL	DIFF	CYCLES COVERED	CELLS IN PACK		
		NO.	TEMP. °C	PERIOD (E.R.S) DISCH. CH.									THIS MONTH	START	END
CHILLER (pages 95-96)	61	0	0.5	1.0	15	25	"	115	1.55	FAILED	104/6	10			
	62	0	"	"	25	25	"	125	1.49	FAILED	1450/	150/3	5/2		6
	13	25	"	"	40	40	"	160	2.45	FAILED	402/	"			
	14	25	"	"	25	25	"	175	1.55	FAILED	2096/	"			
	37	40	"	"	25	25	"	175	1.49	FAILED	6064/	"			
	38	40	"	"	25	25	"	175	1.55	FAILED	1377/	712/	7345/	223	7
	65	0	"	2.5	15	25	"	175	1.55	FAILED	444/4	"			
	66	0	"	"	25	25	"	175	1.49	FAILED	2885/	"			
	17	25	"	"	25	25	"	175	1.49	FAILED	1550/	"			
	18	25	"	"	40	40	"	160	1.45	FAILED	1689/	"			
Q. E. (pages 97-101)	41	40	"	"	15	25	"	175	1.55	FAILED	4133/	"			
	42	40	"	"	25	25	"	175	1.55	FAILED	1462/1	1510/1	480		5
	110	0	"	1.0	15	25	"	175	1.55	FAILED	1424/7	14727	480		4
	124	0	"	"	25	25	"	175	1.49	FAILED	10878/	"			
	82	25	"	"	25	25	"	175	1.49	FAILED	4020/	"			
	96	25	"	"	40	40	"	160	1.45	FAILED	4424/	"			
	85	40	"	"	15	25	"	160	1.45	FAILED	9710/	"			
	99	40	"	"	25	25	"	175	1.55	FAILED	4953/	"			
	111	0	"	2.5	15	25	"	175	2.01	FAILED	7455/	254/	"		5
	125	0	"	"	25	25	"	175	1.49	FAILED	7206/	7460/	254/		5
GUND (pages 103-105)	83	25	"	"	25	25	"	175	1.49	FAILED	7305/	7559/	254/		5
	97	25	"	"	40	40	"	160	1.45	FAILED	5009/	"			
	86	40	"	"	15	25	"	175	1.45	FAILED	7100/	7354/	254/		5
	100	40	"	"	25	25	"	175	1.55	FAILED	4424/	"			
	84	0	"	1.0	25	25	"	175	1.49	FAILED	14522/	15034/	512		5
	98	0	"	"	25	25	"	175	1.55	FAILED	10641/	"			
	104	25	"	"	25	25	"	175	1.49	FAILED	2980/	"			
	118	25	"	"	40	40	"	175	1.49	FAILED	2937/	"			
	112	40	"	"	15	25	"	160	1.45	FAILED	5213/	"			
	126	40	"	"	25	25	"	175	1.49	FAILED	1569/	"			
GUND (pages 103-105)	80	0	"	2.5	15	25	"	175	1.55	FAILED	7267/	7498/	231/		5
	94	0	"	"	25	25	"	175	1.55	FAILED	7151/	7375/	224/		5
	05	25	"	"	25	25	"	175	1.49	FAILED	5690/	"			
	19	25	"	"	40	40	"	160	1.45	FAILED	1794/	"			
	108	40	"	"	15	25	"	175	1.45	FAILED	4933/	"			
GUND (pages 103-105)	122	40	"	"	25	25	"	175	1.45	FAILED	983/	"			

MTR.	CAP. (AH)	PICK UP NO.	TEMP. °C	CRATE PERIOD (ECS) DISCH. CIR.	DEPTH OF DISCH.	PERCENT OF RECHG.	CENT. OF VOLT. LIMIT	INITIAL FINAL	DIFF. FINAL	CYCLES COVERED		CELLS IN PACK	THIS MONTH
										START	END		
101	0	0	0.5	1.0	15	115	1.55	FAILED	3631				
115	0	"	"	"	25	"	"	FAILED	2291				
73	25	"	"	"	25	125	1.49	FAILED	7762				
87	25	"	"	"	40	"	"	FAILED	627				
76	40	"	"	"	15	160	1.45	FAILED	9348				
90	40	"	"	"	25	"	"	FAILED	4045				
102	0	0	2.5	1.5	15	115	1.55	7095	7326	231			
116	0	"	"	"	25	"	"	FAILED	6939	7146	207		
74	25	"	"	"	25	125	1.49	FAILED	1255				
88	25	"	"	"	40	"	"	FAILED	359				
77	40	"	"	"	15	160	1.45	FAILED	602				
91	40	"	"	"	25	"	"	FAILED	4490				

CONTINUE
Page # 06-107

MTR.	CAP. (AH)	PACK NO.	TEMP. °C	PERIOD DISCH. CHG.	DEPTH OF DISCH.	PERCENT RECHARGE ⁽¹⁾	PERCENT OF VOLT. LIMIT	CYCLES COVERED		CELLS IN PACK		
								INITIAL	FINAL	DIFF	START	END
Gulton Pages /01- //1	1.25	174	-20	0.5	1.0	25	*	*	2452	2882	430	5.0
		388	-20	0.5	1.0	60/25	*	*	1898	2281	383	5.0
		308	0	0.5	1.0	25	*	*	2722	3185	463	5.0
		198	0	0.5	1.0	60	*	*	2722	3185	463	5.0
Gulton (SHERRY)	3.6		25	0.5	1.0	40	60	*	FAILED	5505	10	
Gulton (Coulometer) Page //2	3.6	239	25	0.5	1.0	40	*	1.48	4238	4684	446	10
Gulton (Commercial) Page //3//6	4.0	315	0	0.5	1.0	25	115	1.53	11359	1789	430	5.5
		326	0	0.5	1.0	25	115	1.53	11771	2283	512	5.5
		204	25	0.5	1.0	25	125	1.49	11575	2069	494	5.5
		214	25	0.5	1.0	40	125	1.49	FAILED	8474		5.5
		228	10	0.5	1.0	15	160	1.45	11484	193	479	5.5
		240	40	0.5	1.0	25	160	1.45	FAILED	10359		5.5
Gulton (NIMBUS) Pages //7- //2//	5.0	117	0	0.5	1.0	15	110	1.49	7319	7782	463	5.5
		121	0	0.5	1.0	25	110	1.49	6793	7222	429	4.4
		120	25	0.5	1.0	15	120	1.49	7444	7874	430	5.5
		318	25	0.5	1.0	25	120	1.49	6818	7248	430	4.4
		127	40	0.5	1.0	15	130	1.49	7365	7649	284	4.4
		128	40	0.5	1.0	25	130	1.49	FAILED	6344		
Gulton (POLLED) SEAL) Pages //2- //25	5.6	244	-20	0.5	1.0	25	115	1.55	3681	4111	430	5.5
		200	0	0.5	1.0	25	115	1.55	38832	4328	494	5.5
		276	25	0.5	1.0	25	125	1.49	3905	4368	463	4.4
GULTON (NonFolded SEAL) Pages //6- //28	5.6	232	-20	0.5	1.0	25	115	1.55	3642	4105	463	5.5
		390	0	0.5	1.0	25	115	1.55	3896	4393	497	5.5
		326	25	0.5	1.0	25	125	1.49	3994	4424	430	4.4
		230	40	0.5	1.0	25	160	1.45	FAILED	1225		
Gulton (HSI) Pages //28	6.0	79	25	1.0	23.0	50	200	1.49	Failed	545		5.5
		213	0	0.5	1.0	25	115	1.55	8437	8899	462	5.5
		218	25	0.5	1.0	40	125	1.49	FAILED	7577		
		238	40	0.5	1.0	25	160	1.45	FAILED	5766		

*Does Not Apply

(1) Actual percent of recharge may be lower due to voltage limit.

MFR.	CAP. (AH)	PACK NO.	TEMP. °C	PERIOD DISCH. HR.	CIRCUIT DEPTH OF DISCH. %	PERCENT RECHARGE(1)	PERCENT CHG. OF VOLT. LIMIT	CYCLES COVERED			CELLS IN PACK		
								INITIAL	FINAL	DIFF	INITIAL	STAND. TIME	WORST ED
Gulton Pages /30 - 132a	6.0	59	0	0.5	1.2	25	*	7208	7638	430	5	4	4
	71	0	0.5	1.0	1.0	10	*	Failed	5759	5	5	5	5
	23	25	0.5	1.0	25	*	*	8347	8849	502	5	5	5
	11	25	0.5	1.0	1.0	10	*	Failed	7749	5	5	5	5
	35	40	0.5	1.0	15	*	*	16541	6987	446	5	5	5
	47	40	0.5	1.0	25	*	*	Failed	5321	5	5	5	5
	12.0	216	0	0.5	1.0	15	115	105	8510	9004	494	5	5
	301	0	0.5	1.0	25	115	1.55	9378	9841	463	5	4	
	227	25	0.5	1.0	25	125	1.49	8689	9168	479	5	5	
	296	25	0.5	1.0	10	125	1.49	Failed	5152	5	5	5	
Gulton Pages /3.5 - 36	78	40	0.5	1.0	15	160	1.15	9348	9827	479	4	4	4
	290	40	0.5	1.0	25	160	1.15	Failed	5124	5	5	5	
	50.0	95	0	0.5	1.0	25	115	1.55	Failed	3227	5	5	5
	123	40	0.5	1.0	15	160	1.05	Failed	1874	5	5	5	
Yardney Pages /37 - 39	12.0	57	0	1.0	23.0	50	*	1.50	Failed	166	10	10	10
	33	40	1.0	23.0	50	*	*	1.50	Failed	210	10	10	10
	257	0	1.0	23.0	20	*	*	1.50	Failed	266	5	5	5
	409	25	1.0	23.0	20	*	*	1.50	Failed	34	5	5	5
	21	25	1.0	23.0	20	*	*	1.50	Failed	98	5	5	5
	69	25	1.0	23.0	20	*	*	1.50	Failed	325	31	31	31
	45	40	1.0	23.0	20	*	*	1.50	Failed	61	5	5	5
	233	25	1.0	23.0	20	*	*	1.50	Failed	31	5	5	5
	12.0	165	-20	0.5	1.0	25	130	11.60	Discontinued	314	5	5	5
	197	0	0.5	1.0	25	130	1.58	2.526	2.972	446	5	5	5
Yardney Limited Electrolyte DELCO	162	25	0.5	1.0	25	130	1.55	33374	3853	479	5	5	5
	12	9	25	1.0	23.0	42	*	1.97	Failed	57	10	10	10
	609	25	1.0	23.0	10	*	*	1.97	Failed	119	10	10	10
	75	25	1.0	23.0	10	*	*	1.97	Failed	32	5	5	5
Yardney DELCO	89	25	1.0	23.0	10	*	*	1.97	Failed	80	5	5	5
	286	25	0.5	2.5	10	*	*	1.97	Discontinued	20	5	5	5
	188	25	0.5	2.5	40	*	*	1.97	Failed	325	5	5	5
	40	275	1	1.0	23.0	25	*	1.97	Discontinued	339	5	5	5

* Does Not Apply
(1) Actual percent of recharge may be lower due to voltage limit.

MFR.	CAP. (AH)	PACK NO.	TEMP. °C	PERIOD DISCH. hrs.	DEPTH DISCH. %	PERCENT CHG. RECHARGE(1)	PERCENT CHG. VOLT LIMIT	CYCLES COVERED		CELLS IN PACK		
								INITIAL	FINAL	DIFF.	INITIAL	FINAL
G. E. (NIMBUS) Pages 141 - 145	5.0	103	0	0.5	1.0	15	110	75.25	79.88	4.63	5	5
		107	0	0.5	1.0	25	110	1.49	6.833	7.327	4.94	5
		106	25	0.5	1.0	15	120	1.49	7.532	8.011	4.79	5
		304	25	0.5	1.0	25	120	1.49	6.813	7.292	4.79	5
		113	40	0.5	1.0	15	130	1.49	FAILED	4.698		4
		114	40	0.5	1.0	25	130	1.49	6.567	7.046	4.79	3
G. E.	12.0	93	25**	1.0	23.0	50	200***	1.49**	Failed	3.49		
G. E. (Third Electrode) Pages 146 - 1474	60	0	0.5	1.0	25	*	*	4.811	5.322	5.11	5	5
G. E. • Gulton (Coulometer) Page 148	12.0	12	25	0.5	1.0	25	*	*	Discont.	1.999		
	24	25	0.5	1.0	40	*	*	*	Discont.	1.999		
	4.8	40/0	0.5	1.0	25/40	*	*	4.325	4.834	5.11	5	5
	40	0.5	1.0	40	*	1.011	3.828	4.059	2.31	11	8	0
Sonotone (Triple Seal) Pages 149 - 152	3.6	243	0	0.5	1.0	15	115	1.55	6.192	6.661	4.69	5
	231	0	0.5	1.0	25	115	1.55	6.207	6.686	4.79	5	5
	203	25	0.5	1.0	25	125	1.619	6.530	7.009	4.79	5	5
	202	25	0.5	1.0	40	125	1.619	FAILED	5.999			
	226	40	0.5	1.0	25	160	1.615	5.879	6.226	3.47	5	4
	237	40	0.5	1.0	25	160	1.615	-	-	-		
Sonotone (Coulometer) Page 153	5.0	25	0.5	1.0	30	*	1.60	1.60	10396	10.895	4.99	5
Sonotone (STABILATOR) Pages 154 - 155	5.0	175	-20	0.5	1.0	25	*	*	FAILED	2.145		
	289	-20	0.5	1.0	40	*	*	FAILED	1.530			
	92	0	0.5	1.0	25	*	*	5.455	5.788	3.95	5	4
	322	0	2.5	1.0	40	*	*	4.831	5.190	3.59	3	0
	273	25	0.5	1.0	25	*	*	FAILED	3.742			
	287	25	0.5	1.0	40	*	*	FAILED	2.393			
	299	40	0.5	1.0	25	*	*	FAILED	4.999			
	312	40	0.5	1.0	40	*	*	FAILED	3.262			

* Does Not Apply

** CHANGED TO 40°C, 1.45 V/Cell Limit After Cycle 173

*** INCREASED TO 250% After Cycle 266

(1) Actual percent of recharge may be lower due to voltage limits.

NTR.	CAP. (AH)	PACK TEMP. NO. °C	CIRCUIT PERIOD (HRS)	PERCENT OF DISCH.	VOLT. INDIC.	PERCENT OF RECH.	CIRCUIT DEPTH OF DISCH.	CYCLES COVERED	CELLS IN PACK	
									THIS MONTH	YESTERDAY
E.S.B. 3rd Electrode (Page 156)	8	201	25	1.0	7.0	25%	175%	1.54	0	4/6
Yardley (Pr #1) (Page 157)	3	402	25	0.5	1.0	16	260%	1.55	0	1/6 3 1/6 3 9 9

PACK NO. 63
G.E. 3 A.H.

DEPTH OF DISCHARGE 15
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT
NO. VOLTAGE 0.90 1 2 3 4 5 6 7 8 9 10

	14940	11.43	.90	1.29	1.30	1.29	1.24	1.27	.00	1.27	1.28	1.29	1.27
	14972	11.39	.90	1.28	1.29	1.28	1.24	1.27	.00	1.26	1.25	1.27	1.27
	15036	11.28	.89	1.27	1.28	1.27	1.21	1.26	.00	1.25	1.26	1.28	1.26
	15069	11.28	.89	1.27	1.28	1.27	1.21	1.26	.00	1.25	1.26	1.28	1.26
	15100	11.26	.89	1.27	1.28	1.27	1.21	1.26	.00	1.25	1.26	1.27	1.26
	15132	11.24	.89	1.29	1.29	1.30	1.23	1.29	.00	1.27	1.28	1.28	1.29
	15163	11.18	.90	1.26	1.26	1.27	1.19	1.25	.00	1.24	1.25	1.26	1.24
	15196	11.23	.90	1.26	1.27	1.26	1.20	1.26	.00	1.24	1.25	1.25	1.25
	15227	11.23	.90	1.27	1.27	1.27	1.20	1.26	.00	1.25	1.26	1.27	1.26
	15260	11.14	.90	1.27	1.27	1.28	1.20	1.27	.00	1.25	1.26	1.26	1.26
	15292	11.11	.90	1.25	1.26	1.26	1.18	1.25	.00	1.24	1.25	1.26	1.24
	15323	11.07	.90	1.25	1.25	1.25	1.17	1.24	.00	1.23	1.24	1.26	1.24
	15355	11.05	.90	1.24	1.24	1.25	1.16	1.23	.00	1.22	1.23	1.26	1.23
	15388	11.06	.90	1.25	1.26	1.26	1.17	1.24	.00	1.23	1.24	1.26	1.24

	1494U	13.30	.52	1.47	1.48	1.46	1.62	1.47	.00	1.47	1.44	1.48	1.44
	14972	14.92	.51	1.70	1.58	1.69	1.69	1.70	.00	1.63	1.67	1.64	1.66
	15036	14.87	.51	1.69	1.57	1.68	1.69	1.70	.00	1.62	1.66	1.63	1.65
	15069	14.83	.51	1.69	1.57	1.68	1.69	1.70	.00	1.62	1.64	1.63	1.64
	15100	14.83	.51	1.69	1.57	1.68	1.69	1.70	.00	1.61	1.64	1.63	1.64
	15132	14.76	.51	1.69	1.57	1.69	1.70	1.71	.00	1.62	1.65	1.61	1.65
	15163	14.99	.51	1.71	1.57	1.70	1.72	1.73	.00	1.63	1.66	1.63	1.66
	15196	14.78	.51	1.69	1.56	1.67	1.67	1.70	.00	1.61	1.64	1.59	1.63
	15227	14.15	.36	1.63	1.53	1.60	1.61	1.60	.00	1.57	1.55	1.57	1.56
	15260	14.30	.29	1.63	1.52	1.63	1.63	1.68	.00	1.56	1.56	1.57	1.58
	15292	14.34	.27	1.65	1.52	1.62	1.63	1.69	.00	1.56	1.57	1.57	1.58
	15323	13.93	.22	1.59	1.49	1.57	1.58	1.64	.00	1.52	1.53	1.53	1.54
	15355	13.89	.21	1.59	1.49	1.57	1.58	1.65	.00	1.52	1.52	1.51	1.54
	15388	13.92	.21	1.60	1.48	1.57	1.57	1.65	.00	1.52	1.52	1.52	1.53

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PACK NO. 64
G.E. 3 A.H.

DEPTH OF DISCHARGE 25 PERCENT OF RECHARGE 115 ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT
NO. VOLTAGE 1.50 1

CYCLE NO.	PACK VOLTAGE	CURRENT 1.50	CELL VOLTAGES									
			1	2	3	4	5	6	7	8	9	10
15224•	12.014	1.051	1.023	1.024	1.022	1.022	1.023	1.022	1.021	1.021	1.024	1.020
15256•	12.011	1.051	1.022	1.023	1.022	1.022	1.023	1.022	1.021	1.021	1.023	1.020
15288•	12.009	1.051	1.022	1.023	1.022	1.022	1.023	1.022	1.021	1.021	1.023	1.020
15320•	12.005	1.051	1.021	1.022	1.021	1.022	1.021	1.022	1.021	1.021	1.020	1.019
15352•	12.009	1.051	1.022	1.023	1.022	1.022	1.023	1.022	1.021	1.020	1.023	1.020
15384•	12.007	1.051	1.022	1.023	1.022	1.022	1.023	1.022	1.021	1.020	1.023	1.020
15416•	12.007	1.050	1.024	1.024	1.024	1.024	1.025	1.025	1.024	1.024	1.023	1.019
15448•	12.007	1.052	1.023	1.022	1.022	1.022	1.023	1.022	1.021	1.021	1.023	1.023
15481•	12.004	1.051	1.021	1.022	1.022	1.022	1.021	1.022	1.021	1.021	1.021	1.019
15512•	12.005	1.051	1.022	1.022	1.022	1.022	1.021	1.021	1.020	1.020	1.020	1.019
15544•	12.008	1.051	1.022	1.022	1.022	1.022	1.022	1.022	1.021	1.020	1.021	1.019
15577•	11.99	1.051	1.021	1.021	1.021	1.021	1.021	1.022	1.021	1.021	1.023	1.020
15607•	12.007	1.052	1.022	1.023	1.022	1.022	1.021	1.021	1.020	1.020	1.022	1.019
15640•	12.007	1.052	1.022	1.022	1.022	1.022	1.021	1.021	1.021	1.021	1.023	1.020
15672•	12.005	1.051	1.022	1.022	1.022	1.022	1.021	1.021	1.020	1.020	1.024	1.019
83												
15224•	15.070	0.54	1.056	1.065	1.068	1.053	1.060	1.053	1.053	1.053	1.055	1.054
15256•	15.069	0.51	1.053	1.055	1.065	1.069	1.052	1.060	1.055	1.055	1.053	1.053
15288•	15.067	0.53	1.053	1.054	1.065	1.069	1.052	1.060	1.053	1.054	1.058	1.058
15320•	15.076	0.47	1.052	1.056	1.065	1.068	1.055	1.060	1.055	1.055	1.059	1.055
15352•	14.068	0.86	1.046	1.046	1.050	1.050	1.045	1.051	1.047	1.047	1.048	1.044
15384•	15.069	0.51	1.053	1.055	1.066	1.068	1.052	1.060	1.053	1.054	1.058	1.054
15416•	15.065	0.54	1.054	1.055	1.067	1.070	1.055	1.062	1.055	1.055	1.056	1.055
15448•	15.071	0.52	1.049	1.053	1.066	1.069	1.053	1.060	1.055	1.055	1.057	1.054
15480•	15.064	0.52	1.052	1.053	1.065	1.069	1.052	1.059	1.052	1.053	1.054	1.053
15512•	15.064	0.48	1.052	1.054	1.065	1.068	1.053	1.059	1.051	1.055	1.054	1.052
15544•	15.073	0.52	1.053	1.055	1.066	1.069	1.054	1.060	1.054	1.055	1.054	1.052
15577•	15.076	0.44	1.052	1.057	1.067	1.067	1.055	1.060	1.054	1.057	1.058	1.054
15607•	15.071	0.49	1.053	1.056	1.064	1.068	1.055	1.059	1.055	1.057	1.058	1.057
15640•	15.069	0.51	1.053	1.056	1.066	1.069	1.054	1.059	1.054	1.055	1.057	1.054
15672•	15.071	0.49	1.053	1.056	1.066	1.070	1.053	1.060	1.055	1.055	1.058	1.054

END OF
DISCHARGE

CYCLE NO.	PACK VOLTAGE	CURRENT 1.50	CELL VOLTAGES									
			1	2	3	4	5	6	7	8	9	10
15224•	15.070	0.54	1.056	1.065	1.068	1.053	1.060	1.053	1.053	1.053	1.055	1.054
15256•	15.069	0.51	1.053	1.055	1.065	1.069	1.052	1.060	1.055	1.055	1.058	1.058
15288•	15.067	0.53	1.053	1.054	1.065	1.069	1.052	1.060	1.053	1.054	1.058	1.058
15320•	15.076	0.47	1.052	1.056	1.065	1.068	1.055	1.060	1.055	1.055	1.059	1.055
15352•	14.068	0.86	1.046	1.046	1.050	1.050	1.045	1.051	1.047	1.047	1.048	1.044
15384•	15.069	0.51	1.053	1.055	1.066	1.068	1.052	1.060	1.053	1.054	1.058	1.054
15416•	15.065	0.54	1.054	1.055	1.067	1.070	1.055	1.062	1.055	1.055	1.056	1.055
15448•	15.071	0.52	1.049	1.053	1.066	1.069	1.053	1.060	1.054	1.057	1.058	1.054
15480•	15.064	0.52	1.052	1.053	1.065	1.069	1.052	1.059	1.052	1.053	1.057	1.053
15512•	15.064	0.48	1.052	1.054	1.065	1.068	1.053	1.059	1.051	1.055	1.054	1.052
15544•	15.073	0.52	1.053	1.055	1.066	1.069	1.054	1.060	1.054	1.055	1.054	1.052
15577•	15.076	0.44	1.052	1.057	1.067	1.067	1.055	1.060	1.054	1.057	1.058	1.054
15607•	15.071	0.49	1.053	1.056	1.064	1.068	1.055	1.059	1.057	1.057	1.058	1.057
15640•	15.069	0.51	1.053	1.056	1.066	1.069	1.054	1.061	1.055	1.055	1.057	1.054
15672•	15.071	0.49	1.053	1.056	1.066	1.070	1.053	1.060	1.055	1.055	1.058	1.054

END OF
CHARGE

PACK NO. 67
G.E. 3 A.H.

DEPTH OF DISCHARGE 15 TEST TEMPERATURE 0 C
PERCENT OF RECHARGE 115 ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	PACK CURRENT 0.90	CELL VOLTAGES									
			1	2	3	4	5	6	7	8	9	10
7453•	12.53	.86	1.26	1.27	1.24	1.27	1.26	1.26	1.26	1.25	1.28	1.25
7485•	12.47	.91	1.25	1.27	1.23	1.26	1.26	1.26	1.25	1.24	1.27	1.24
7517•	12.46	.91	1.25	1.26	1.24	1.26	1.26	1.25	1.24	1.24	1.26	1.24
7551•	12.48	.91	1.26	1.26	1.23	1.27	1.26	1.26	1.25	1.24	1.27	1.24
7580•	12.45	.90	1.25	1.26	1.23	1.26	1.26	1.25	1.25	1.24	1.23	1.25
7613•	12.48	.90	1.25	1.27	1.25	1.27	1.26	1.26	1.25	1.24	1.27	1.24
7644•	12.39	.91	1.25	1.25	1.23	1.26	1.25	1.25	1.24	1.23	1.26	1.23
7676•	12.39	.92	1.24	1.26	1.23	1.25	1.25	1.26	1.25	1.23	1.26	1.23
		.21										
7453•	15.64	.08	1.61	1.49	1.46	1.63	1.62	1.60	1.57	1.56	1.58	1.57
7485•	15.64	.10	1.56	1.50	1.48	1.63	1.60	1.55	1.57	1.56	1.58	1.58
7517•	15.61	.11	1.56	1.49	1.49	1.62	1.63	1.61	1.53	1.58	1.54	1.57
7551•	15.60	.10	1.60	1.49	1.48	1.61	1.62	1.59	1.56	1.57	1.55	1.57
7580•	15.54	.10	1.58	1.48	1.47	1.60	1.62	1.59	1.51	1.56	1.53	1.56
7613•	15.62	.12	1.57	1.50	1.50	1.62	1.64	1.61	1.53	1.58	1.52	1.58
7644•	15.61	.12	1.59	1.50	1.49	1.62	1.64	1.61	1.56	1.53	1.56	1.56
7676•	15.55	.12	1.56	1.50	1.49	1.60	1.63	1.61	1.53	1.57	1.53	1.56

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PACK NO. • 68
G.E. 3 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 °C
ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL Voltages								END OF DISCHARGE
			1	2	3	4	5	6	7	8	
7340•	10.80	1.51	1.21	1.21	1.20	1.21	1.21	1.20	1.20	0.00	1.21
7372•	10.77	1.50	1.19	1.20	1.22	1.20	1.21	1.19	0.00	1.20	END OF DISCHARGE
7404•	10.74	1.51	1.19	1.20	1.21	1.19	1.20	1.20	1.19	0.00	1.20
7493•	11.15	1.52	1.24	1.24	1.25	1.26	1.24	1.25	1.25	0.00	1.25
7525•	10.96	1.52	1.21	1.22	1.22	1.24	1.22	1.22	1.23	1.22	0.00
7556•	10.92	1.52	1.21	1.22	1.21	1.24	1.22	1.22	1.23	1.22	0.00
		•34									1.22
7340•	13.84	0.7	1.61	1.63	1.52	1.52	1.54	1.52	1.55	0.00	1.48
7372•	13.96	0.10	1.63	1.65	1.52	1.53	1.56	1.54	1.56	0.00	1.49
7404•	14.26	0.11	1.66	1.66	1.55	1.58	1.59	1.55	1.60	0.00	1.50
7493•	13.21	0.27	1.50	1.49	1.45	1.50	1.47	1.48	1.47	0.00	1.46
7525•	13.59	0.11	1.56	1.59	1.42	1.54	1.50	1.51	1.48	1.55	0.00
7556•	13.75	0.08	1.61	1.62	1.43	1.56	1.52	1.53	1.49	1.58	0.00

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PACK NO. 19
6•E• 3 A•H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 125
TEST TEMPERATURE 25 C
ORBIT PERIOD 3 HOURS

CYCLE PACK CURRENT
NO. VOLTAGE 1.50

CYCLE NO.	PACK VOLTAGE	CURRENT 1.50	CELL Voltages								END OF DISCHARGE
			1	2	3	4	5	6	7	8	
7426•	11•88	1•49	1•19	1•20	1•19	1•21	1•20	1•18	1•18	1•21	1•19
7458•	11•84	1•48	1•18	1•20	1•19	1•20	1•19	1•18	1•18	1•21	1•18
749•	11•82	1•51	1•18	1•19	1•19	1•19	1•19	1•17	1•17	1•20	1•18
7524•	11•77	1•50	1•17	1•19	1•18	1•20	1•18	1•19	1•16	1•17	1•17
7554•	11•65	1•50	1•15	1•17	1•16	1•19	1•17	1•17	1•14	1•16	1•17
7586•	12•53	1•52	1•22	1•22	1•22	1•22	1•22	1•20	1•21	1•19	1•20
7618•	11•96	1•52	1•21	1•21	1•19	1•20	1•20	1•19	1•19	1•20	1•19
7649•	11•83	1•54	1•20	1•20	1•19	1•20	1•20	1•19	1•17	1•18	1•18
		•38									
7426•	14•80	•15	1•46	1•48	1•45	1•49	1•49	1•52	1•50	1•52	1•50
7458•	14•95	•14	1•47	1•50	1•46	1•50	1•51	1•46	1•51	1•54	1•52
749•	14•98	•31	1•47	1•49	1•47	1•50	1•53	1•46	1•52	1•53	1•52
7524•	14•86	•16	1•46	1•48	1•45	1•50	1•50	1•52	1•51	1•52	1•51
7554•	15•13	•23	1•46	1•49	1•45	1•53	1•50	1•57	1•45	1•56	1•55
7586•	15•12	•37	1•54	1•54	1•51	1•49	1•55	1•50	1•49	1•53	1•50
7618•	14•65	•37	1•50	1•49	1•47	1•44	1•48	1•44	1•46	1•44	1•45
7649•	14•59	•38	1•49	1•48	1•48	1•44	1•47	1•45	1•46	1•45	1•45

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PACK NO. 51
GOULD 3.5 A.H.

DEPTH OF DISCHARGE 15 TEST TEMPERATURE 0 C
PERCENT OF RECHARGE 115 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	CELL Voltages										END OF DISCHARGE
			1	2	3	4	5	6	7	8	9	10	
15099.	11.15	1.56	1.25	1.24	1.22	1.24	1.25	1.24	1.23	1.23	1.28	1.28	0.00
15131.	11.09	1.07	1.06	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.07	1.07	0.00
15163.	11.07	1.06	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.07	1.07	0.00
15195.	11.09	1.06	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.07	1.07	0.00
15228.	11.17	1.06	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.08	1.08	0.00
15259.	11.14	1.06	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.08	1.08	0.00
15291.	11.09	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.09	1.09	0.00
15322.	10.95	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.09	1.09	0.00
15355.	11.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.08	1.08	0.00
15386.	11.07	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.08	1.08	0.00
15419.	11.12	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.09	1.09	0.00
15451.	11.03	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.08	1.08	0.00
15482.	11.13	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.08	1.08	0.00
15514.	11.11	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.08	1.08	0.00
15547.	11.11	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.07	1.07	0.00
15099.	13.94	6.1	1.57	1.60	1.61	1.61	1.61	1.61	1.61	1.61	1.55	1.55	0.00
15131.	13.87	6.1	1.57	1.60	1.63	1.63	1.63	1.63	1.63	1.63	1.57	1.57	0.00
15163.	14.07	6.0	1.60	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.56	1.56	0.00
15195.	14.15	5.7	1.57	1.57	1.59	1.59	1.59	1.59	1.59	1.59	1.55	1.55	0.00
15228.	14.04	6.0	1.57	1.57	1.60	1.60	1.60	1.60	1.60	1.60	1.54	1.54	0.00
15259.	13.99	5.8	1.57	1.60	1.61	1.61	1.61	1.61	1.61	1.61	1.57	1.57	0.00
15291.	13.96	6.0	1.58	1.60	1.62	1.62	1.62	1.62	1.62	1.62	1.57	1.57	0.00
15322.	14.14	5.0	1.57	1.57	1.59	1.59	1.59	1.59	1.59	1.59	1.65	1.65	0.00
15355.	13.87	5.5	1.56	1.56	1.59	1.59	1.59	1.59	1.59	1.59	1.53	1.53	0.00
15386.	13.81	5.4	1.57	1.60	1.61	1.61	1.61	1.61	1.61	1.61	1.49	1.49	0.00
15419.	13.97	6.0	1.58	1.60	1.62	1.62	1.62	1.62	1.62	1.62	1.54	1.54	0.00
15451.	14.17	5.5	1.57	1.57	1.59	1.59	1.59	1.59	1.59	1.59	1.57	1.57	0.00
15482.	14.01	5.6	1.57	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.58	1.58	0.00
15514.	13.96	5.9	1.58	1.60	1.62	1.62	1.62	1.62	1.62	1.62	1.57	1.57	0.00
15547.	13.95	6.0	1.57	1.60	1.61	1.61	1.61	1.61	1.61	1.61	1.55	1.55	0.00

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PACK NO. 55
GOULD 3.05 A.H.

DEPTH OF DISCHARGE 15 TEST TEMPERATURE 0 C
PERCENT OF RECHARGE 115 ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	CURRENT 1.06	CELL Voltages									
			1	2	3	4	5	6	7	8	9	10
7501•	12.51	1.055	1.026	1.026	1.025	1.025	1.025	1.024	1.025	1.028	1.025	END OF DISCHARGE
7533•	12.54	1.055	1.025	1.027	1.027	1.026	1.025	1.025	1.025	1.029	1.026	END OF DISCHARGE
7565•	12.51	1.056	1.026	1.026	1.027	1.025	1.024	1.024	1.024	1.025	1.027	1.025
7599•	12.48	1.057	1.026	1.026	1.026	1.025	1.024	1.024	1.024	1.024	1.027	1.025
7629•	12.41	1.057	1.024	1.025	1.025	1.024	1.024	1.024	1.023	1.023	1.024	1.024
7693•	12.47	1.056	1.026	1.026	1.025	1.025	1.025	1.024	1.025	1.025	1.027	1.025
		•24										
7501•	15.02	•20	1.051	1.052	1.050	1.050	1.050	1.049	1.054	1.053	1.049	END OF CHARGE
7533•	15.48	•18	1.054	1.063	1.054	1.055	1.054	1.053	1.053	1.057	1.053	END OF CHARGE
7565•	15.42	•24	1.054	1.060	1.055	1.055	1.054	1.053	1.052	1.056	1.052	END OF CHARGE
7599•	15.43	•21	1.055	1.060	1.055	1.055	1.054	1.052	1.052	1.056	1.052	END OF CHARGE
7629•	15.45	•24	1.054	1.059	1.055	1.055	1.054	1.052	1.052	1.056	1.052	END OF CHARGE
7693•	15.39	•24	1.054	1.058	1.054	1.055	1.054	1.053	1.052	1.054	1.056	1.052

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PACK NO. 56
GOULD 3.5 A.H.

DEPTH OF DISCHARGE 25 PERCENT OF RECHARGE 115 ORBIT PERIOD 3 HOURS C

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	CELL Voltages									
			1	2	3	4	5	6	7	8	9	10
7478•	12.01	1.77	1.20	1.21	1.22	1.20	1.20	1.20	1.20	1.20	1.20	1.20
7510•	11.98	1.74	1.20	1.21	1.20	1.21	1.20	1.20	1.19	1.19	1.22	1.20
7512•	12.02	1.76	1.20	1.21	1.22	1.22	1.20	1.19	1.20	1.20	1.21	1.20
7576•	12.10	1.76	1.21	1.22	1.22	1.22	1.21	1.20	1.21	1.21	1.22	1.21
7605•	12.05	1.75	1.21	1.21	1.21	1.22	1.21	1.19	1.20	1.20	1.21	1.20
7638•	12.06	1.76	1.21	1.21	1.22	1.22	1.21	1.20	1.21	1.20	1.22	1.21
7669•	12.01	1.77	1.20	1.21	1.21	1.21	1.20	1.19	1.20	1.20	1.22	1.20
7701•	11.98	1.77	1.20	1.20	1.20	1.21	1.20	1.19	1.20	1.20	1.21	1.20
			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
7478•	15.25	2.0	1.53	1.54	1.50	1.57	1.53	1.54	1.49	1.51	1.56	1.53
7510•	15.30	1.9	1.54	1.55	1.49	1.58	1.54	1.54	1.49	1.51	1.57	1.54
7512•	15.29	2.1	1.53	1.54	1.50	1.57	1.54	1.54	1.50	1.50	1.56	1.52
7576•	15.30	2.1	1.53	1.54	1.50	1.59	1.54	1.54	1.50	1.50	1.56	1.53
7605•	15.30	2.1	1.53	1.54	1.49	1.58	1.54	1.53	1.50	1.50	1.55	1.53
7638•	15.42	2.3	1.55	1.55	1.51	1.59	1.55	1.55	1.52	1.52	1.57	1.54
7669•	15.39	2.2	1.55	1.55	1.50	1.59	1.55	1.55	1.52	1.52	1.57	1.54
7701•	15.32	2.2	1.54	1.54	1.49	1.58	1.54	1.54	1.51	1.51	1.56	1.53

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PACK NO. 49
SONOTONE 5 A.H.

DEPTH OF DISCHARGE 15 PERCENT OF RECHARGE 115 TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	1.50	1	2	3	4	5	6	7	8	9	10	END OF DISCHARGE
14867•	9.76	1.52	1.21	1.23	1.21	1.21	1.23	1.24	1.23	1.23	1.23	1.23	1.23	1.23
14898•	9.74	1.53	1.21	1.22	1.20	1.21	1.23	1.24	1.23	1.23	1.23	1.23	1.23	1.22
14931•	9.70	1.53	1.21	1.22	1.20	1.21	1.22	1.24	1.23	1.23	1.23	1.23	1.23	1.21
14963•	9.63	1.52	1.21	1.21	1.19	1.20	1.21	1.22	1.22	1.22	1.22	1.22	1.22	1.21
14995•	9.71	1.52	1.21	1.22	1.20	1.20	1.22	1.23	1.23	1.23	1.23	1.23	1.22	1.22
15027•	9.72	1.52	1.21	1.22	1.20	1.21	1.23	1.24	1.24	1.25	1.25	1.25	1.25	1.25
15059•	9.70	1.51	1.23	1.24	1.21	1.21	1.23	1.25	1.26	1.26	1.26	1.26	1.26	1.27
15123•	9.65	1.50	1.20	1.20	1.19	1.20	1.21	1.22	1.22	1.22	1.22	1.22	1.21	1.21
15155•	9.69	1.51	1.20	1.21	1.20	1.20	1.21	1.22	1.22	1.22	1.22	1.22	1.22	1.22
15187•	9.72	1.51	1.21	1.22	1.20	1.21	1.23	1.24	1.24	1.24	1.24	1.24	1.24	1.23
15219•	9.61	1.50	1.20	1.20	1.19	1.20	1.21	1.22	1.22	1.22	1.22	1.22	1.21	1.21
15250•	9.71	1.51	1.21	1.22	1.20	1.21	1.23	1.24	1.24	1.24	1.24	1.24	1.24	1.23
15283•	9.70	1.51	1.21	1.21	1.20	1.21	1.22	1.23	1.23	1.23	1.23	1.23	1.23	1.23
15315•	9.70	1.50	1.21	1.22	1.20	1.21	1.22	1.23	1.23	1.23	1.23	1.23	1.23	1.22
•86														
14867•	12.59	0.60	1.56	1.57	0.00	1.57	1.64	1.56	1.58	1.58	1.57	1.57	1.57	1.56
14898•	12.58	0.63	1.56	1.56	0.00	1.57	1.63	1.59	1.57	1.57	1.57	1.57	1.57	1.56
14931•	12.61	0.60	1.56	1.57	0.00	1.57	1.66	1.66	1.58	1.57	1.57	1.57	1.57	1.56
14963•	12.57	0.50	1.60	1.67	0.00	1.58	1.55	1.63	1.56	1.54	1.54	1.54	1.54	1.56
14995•	12.57	0.54	1.55	1.57	0.00	1.56	1.55	1.66	1.57	1.56	1.56	1.56	1.56	1.56
15027•	12.58	0.56	1.55	1.56	0.00	1.56	1.55	1.65	1.58	1.57	1.57	1.57	1.57	1.56
15059•	12.55	0.59	1.56	1.56	0.00	1.57	1.56	1.66	1.59	1.57	1.57	1.57	1.57	1.57
15123•	12.51	0.55	1.55	1.55	0.00	1.56	1.55	1.62	1.57	1.56	1.56	1.56	1.55	1.55
15155•	12.53	0.52	1.56	1.56	0.00	1.56	1.55	1.64	1.58	1.56	1.56	1.56	1.55	1.55
15187•	12.58	0.56	1.57	1.56	0.00	1.57	1.56	1.65	1.58	1.56	1.56	1.56	1.56	1.56
15219•	12.64	0.47	1.61	1.56	0.00	1.60	1.55	1.65	1.56	1.55	1.55	1.55	1.55	1.58
15250•	12.59	0.56	1.56	1.56	0.00	1.56	1.56	1.65	1.56	1.55	1.57	1.57	1.56	1.56
15283•	12.59	0.57	1.56	1.56	0.00	1.56	1.56	1.67	1.58	1.56	1.56	1.56	1.56	1.56
15315•	12.54	0.53	1.55	1.55	0.00	1.56	1.55	1.65	1.57	1.56	1.56	1.56	1.56	1.56

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PACK NO. 50
SONOTONE 5 A.H.

DEPTH OF DISCHARGE 25 PERCENT OF RECHARGE 115 TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE 2.50	CURRENT	CELL Voltages									
			1	2	3	4	5	6	7	8	9	10
14782•	9.06	2.52	1.02	.01	1.02	.00	1.017	1.018	1.017	1.019	1.016	END OF DISCHARGE
14814•	9.05	2.53	1.01	.00	1.02	.00	1.017	1.019	1.017	1.019	1.016	
14846•	9.01	2.52	1.00	.01	.99	.00	1.017	1.018	1.017	1.020	1.016	
14878•	9.03	2.53	1.01	.01	1.01	.00	1.017	1.018	1.017	1.019	1.016	
14909•	9.04	2.52	1.00	.00	1.00	.00	1.017	1.018	1.017	1.019	1.016	
14942•	8.97	2.53	1.01	.00	.04	1.02	.00	1.020	1.019	1.019	1.020	
14974•	8.92	2.52	1.00	.00	.03	1.01	.00	1.020	1.019	1.019	1.020	
15007•	8.93	2.53	.97	.00	.00	.97	.00	1.016	1.017	1.016	1.016	
15039•	8.93	2.52	.97	.00	.00	.95	.00	1.016	1.017	1.016	1.017	
15070•	8.79	2.52	.93	.00	.00	.90	.00	1.016	1.017	1.016	1.017	
15102•	8.90	2.53	.96	.00	.00	.92	.00	1.017	1.018	1.017	1.018	
15134•	8.98	2.53	.90	.00	.01	.96	.00	1.017	1.018	1.017	1.018	
15167•	8.45	2.53	.94	.00	.00	.93	.00	1.017	1.019	1.018	1.017	
15231•	8.66	2.53	.94	.00	.00	.71	.00	1.017	1.018	1.017	1.017	
												1.065
14782•	12.21	.62	1.53	.00	.01	1.52	.00	1.53	1.47	1.54	1.50	END OF CHARGE
14814•	12.21	.62	1.53	.00	.00	1.52	.00	1.53	1.47	1.54	1.51	1.65
14846•	12.22	.63	1.54	.00	.00	1.52	.00	1.53	1.47	1.54	1.51	1.65
14878•	12.24	.61	1.53	.00	.01	1.52	.00	1.53	1.47	1.54	1.51	1.65
14909•	12.21	.64	1.53	.00	.00	1.52	.00	1.53	1.47	1.54	1.51	1.64
14942•	12.18	.62	1.54	.00	.02	1.53	.00	1.53	1.48	1.55	1.48	1.66
14974•	12.18	.61	1.54	.00	.01	1.53	.00	1.54	1.48	1.55	1.49	1.66
15007•	12.21	.60	1.53	.00	.00	1.51	.00	1.52	1.47	1.54	1.47	1.64
15039•	12.17	.64	1.53	.00	.01	1.51	.00	1.51	1.46	1.53	1.47	1.64
15070•	12.17	.64	1.53	.00	.00	1.52	.00	1.52	1.47	1.54	1.47	1.64
15102•	12.23	.64	1.54	.00	.01	1.52	.00	1.53	1.48	1.55	1.50	1.65
15134•	12.26	.62	1.54	.00	.01	1.52	.00	1.53	1.48	1.55	1.48	1.66
15167•	12.24	.64	1.54	.00	.00	1.51	.00	1.52	1.48	1.55	1.48	1.66
15231•	12.25	.63	1.54	.00	.01	1.50	.00	1.53	1.48	1.54	1.48	1.66

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PACK NO. 53
SONOTONE 5 A.H.

DEPTH OF DISCHARGE 15 PERCENT OF RECHARGE 115 TEST TEMPERATURE 0 C
ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	CELL VOLTAGES							
			1	2	3	4	5	6	7	8
7342•	12•30	1•50	1•21	1•23	1•24	1•24	1•24	1•23	1•27	1•22
7374•	12•28	1•50	1•21	1•23	1•24	1•24	1•24	1•22	1•26	1•22
7406•	12•26	1•50	1•20	1•22	1•24	1•24	1•23	1•23	1•25	1•23
7446•	12•28	1•50	1•21	1•23	1•24	1•25	1•24	1•23	1•25	1•23
7470•	12•27	1•50	1•20	1•22	1•23	1•24	1•23	1•23	1•22	1•23
7502•	12•34	1•50	1•21	1•23	1•25	1•25	1•24	1•24	1•23	1•23
7534•	12•25	1•50	1•20	1•22	1•23	1•24	1•24	1•23	1•22	1•23
7565•	12•19	1•50	1•20	1•22	1•23	1•24	1•24	1•23	1•22	1•23
			35		1•51	1•53	1•56	1•63	1•57	1•61
7342•	15•69	•21	•23	•51	•52	•54	•56	•63	•57	•65
7374•	15•72	•23	•51	•51	•52	•54	•56	•63	•57	•61
7406•	15•68	•28	•50	•51	•51	•53	•56	•61	•57	•62
7440•	16•01	•22	•53	•53	•55	•56	•58	•61	•57	•66
7470•	15•73	•21	•50	•51	•51	•56	•56	•62	•57	•63
7502•	15•74	•32	•56	•63	•63	•61	•55	•61	•57	•65
7534•	15•82	•18	•51	•52	•57	•57	•63	•63	•57	•65
7565•	15•62	•16	•50	•50	•56	•56	•61	•61	•49	•64

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PACK NO. 54
SONOTONE 5 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115 ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	CELL Voltages										TEST TEMPERATURE O C
			1	2	3	4	5	6	7	8	9	10	
7322•	11•55	2•50	1•19	1•17	•91	1•16	1•20	1•20	1•18	1•19	1•22	1•20	END OF DISCHARGE
7354•	11•48	2•50	1•18	1•16	•88	1•15	1•20	1•19	1•18	1•18	1•22	1•19	
7386•	11•51	2•51	1•18	1•16	•90	1•15	1•20	1•19	1•17	1•18	1•21	1•19	
7421•	11•55	2•51	1•20	1•17	•90	1•16	1•20	1•20	1•18	1•19	1•22	1•19	
7449•	11•50	2•50	1•18	1•16	•88	1•15	1•20	1•19	1•17	1•18	1•20	1•19	
7482•	11•50	2•51	1•19	1•16	•89	1•15	1•20	1•19	1•18	1•19	1•22	1•20	
7513•	11•48	2•52	1•19	1•16	•88	1•15	1•20	1•19	1•17	1•18	1•22	1•19	
7545•	11•45	2•50	1•18	1•15	•86	1•15	1•20	1•19	1•17	1•18	1•22	1•19	
		•58											
7322•	15•50	•28	1•52	1•53	1•61	1•53	1•54	1•57	1•61	1•60	1•56	1•51	END OF CHARGE
7354•	15•54	•36	1•52	1•52	1•61	1•53	1•54	1•57	1•61	1•61	1•56	1•51	
7386•	15•54	•39	1•52	1•52	1•62	1•53	1•54	1•57	1•61	1•60	1•56	1•51	
7421•	15•54	•25	1•51	1•52	1•62	1•53	1•53	1•58	1•62	1•61	1•55	1•50	
7449•	15•49	•37	1•52	1•51	1•61	1•52	1•53	1•56	1•60	1•59	1•54	1•50	
7482•	15•57	•41	1•53	1•53	1•62	1•54	1•55	1•56	1•61	1•60	1•56	1•51	
7513•	15•58	•39	1•53	1•52	1•63	1•53	1•54	1•57	1•61	1•60	1•56	1•52	
7545•	15•56	•37	1•52	1•52	1•63	1•53	1•54	1•58	1•60	1•60	1•56	1•51	

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PACK NO. 5
SONOTONE 5 A.H.

DEPTH OF DISCHARGE 5
PERCENT OF RECHARGE 125

TEST TEMPERATURE 25 C
ORBIT PERIOD 3 HOURS

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	CELL VOLTAGES									
			1	2	3	4	5	6	7	8	9	10
7213•	9.43	2.49	1.17	.00	.00	1.20	1.18	1.19	1.18	1.20	1.18	
7245•	9.43	2.49	1.17	.00	.00	1.20	1.18	1.19	1.17	1.20	1.18	END OF DISCHARGE
7311•	9.43	2.50	1.16	.00	.00	1.20	1.18	1.19	1.17	1.20	1.18	
7341•	9.34	2.48	1.15	.00	.00	1.18	1.17	1.16	1.17	1.16	1.17	
7373•	9.40	2.46	1.16	.00	.00	1.19	1.18	1.18	1.19	1.17	1.20	1.18
7405•	9.38	2.48	1.15	.00	.00	1.19	1.18	1.17	1.19	1.19	1.19	1.18
7436•	9.40	2.45	1.17	.00	.00	1.19	1.18	1.17	1.19	1.17	1.18	1.18
7213•	11.75	.62	1.46	.00	.00	1.46	1.56	1.45	1.49	1.44	1.44	
7245•	11.81	.62	1.46	.00	.00	1.46	1.47	1.57	1.46	1.44	1.50	1.45
7311•	11.81	.62	1.46	.00	.00	1.47	1.57	1.46	1.50	1.44	1.45	
7341•	11.76	.62	1.45	.00	.00	1.46	1.45	1.45	1.43	1.45	1.44	
7373•	11.79	.59	1.46	.00	.00	1.46	1.47	1.58	1.45	1.44	1.50	1.45
7405•	11.75	.58	1.45	.00	.00	1.46	1.46	1.56	1.45	1.44	1.49	1.44
7436•	11.78	.59	1.46	.00	.00	1.47	1.57	1.45	1.44	1.50	1.45	

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PACK NO. 62
SULTON 6 A.H.

DEPTH OF DISCHARGE 25 PERCENT OF RECHARGE 115 ORRIT PERIOD 90 MIN. C

CYCLE NO.	PACK NO.	VOLTAGE	CURRENT	CELL VOLTAGES							END OF DISCHARGE	
				3.00	1	2	3	4	5	6	7	
14564•	6•97	3•05	1•19	1•00	•00	•00	1•16	•00	1•15	1•16	•00	•00
14596•	6•96	3•05	1•19	1•17	1•14	•00	•00	1•16	•00	1•15	1•19	•00
14628•	6•99	3•05	1•19	1•18	1•16	•00	•00	1•17	•00	1•16	1•20	•00
14660•	6•96	3•05	1•19	1•17	1•15	•00	•00	1•16	•00	1•15	1•20	•00
14691•	6•96	3•05	1•19	1•17	1•15	•00	•00	1•16	•00	1•15	1•19	•00
14724•	6•94	3•02	1•21	1•19	1•18	•00	•00	1•19	•00	1•18	1•19	•00
14756•	6•94	3•01	1•21	1•19	1•17	•00	•00	1•19	•00	1•18	1•19	•00
14789•	6•96	3•00	1•19	1•17	1•14	•00	•00	1•16	•00	1•15	1•18	•00
14821•	6•98	3•00	1•19	1•17	1•15	•00	•00	1•16	•00	1•16	1•18	•00
14852•	6•95	2•99	1•19	1•17	1•14	•00	•00	1•16	•00	1•15	1•19	•00
14884•	6•98	3•00	1•20	1•17	1•14	•00	•00	1•17	•00	1•16	1•19	•00
14916•	7•00	3•00	1•19	1•18	1•15	•00	•00	1•17	•00	1•17	1•19	•00
14949•	6•99	3•00	1•20	1•18	1•15	•00	•00	1•17	•00	1•16	1•20	•00
14980•	7•15	3•00	1•21	1•20	1•18	•00	•00	1•19	•00	1•19	1•21	•00
15013•	6•96	3•01	1•19	1•17	1•14	•00	•00	1•16	•00	1•16	1•19	•00
1•72	9•36	7•73	•72	1•57	1•63	1•57	•00	1•57	•00	1•56	1•52	•00
14564•	9•37	9•36	•72	1•57	1•64	1•57	•00	1•57	•00	1•55	1•51	•00
14628•	9•37	9•37	•72	1•57	1•63	1•57	•00	1•58	•00	1•56	1•52	•00
14660•	9•37	9•37	•75	1•57	1•63	1•57	•00	1•57	•00	1•56	1•51	•00
14691•	9•37	9•37	•75	1•57	1•63	1•57	•00	1•58	•00	1•56	1•49	•00
14724•	9•37	9•37	•72	1•57	1•63	1•58	•00	1•58	•00	1•56	1•49	•00
14756•	9•39	•66	1•56	1•65	1•58	•00	•00	1•58	•00	1•56	1•51	•00
14789•	9•38	•66	1•55	1•65	1•56	•00	•00	1•57	•00	1•55	1•49	•00
14821•	9•35	•69	1•56	1•63	1•57	•00	•00	1•56	•00	1•55	1•49	•00
14852•	9•26	•66	1•56	1•63	1•57	•00	•00	1•57	•00	1•55	1•49	•00
14884•	9•40	•68	1•56	1•67	1•57	•00	•00	1•57	•00	1•56	1•50	•00
14916•	9•41	•68	1•56	1•66	1•58	•00	•00	1•58	•00	1•56	1•50	•00
14949•	9•41	•71	1•56	1•65	1•57	•00	•00	1•58	•00	1•56	1•51	•00
14980•	9•41	•67	1•56	1•65	1•57	•00	•00	1•58	•00	1•56	1•50	•00
15013•	9•42	•66	1•56	1•68	1•57	•00	•00	1•00	•00	1•56	1•50	•00

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PACK NO. 65
GULTON 6 A.H.

TEST POINT OF DISCHARGE 15
TEST TEMPERATURE 0 C

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	CELL VOLTAGES					ORBIT PERIOD 3 HOURS	TEST TEMPERATURE 0 C
			1	2	3	4	5		
7153•	8.56	1.81	1.24	1.25	1.23	1.25	1.25	00	1.25 1.19
7185•	8.53	1.80	1.23	1.25	1.23	1.24	1.19	00	1.25 1.19
7217•	8.53	1.81	1.23	1.24	1.23	1.24	1.19	00	1.24 1.18
7251•	8.40	1.85	1.22	1.23	1.22	1.20	1.20	00	1.23 1.16
7281•	8.51	1.81	1.23	1.24	1.23	1.22	1.19	00	1.24 1.18
7313•	8.58	1.82	1.24	1.25	1.25	1.26	1.20	00	1.25 1.19
7345•	8.52	1.82	1.23	1.24	1.23	1.25	1.19	00	1.25 1.18
7153•	11.00	•33	1.57	1.55	1.56	1.54	1.57	00	1.52 1.62
7185•	11.02	•30	1.59	1.54	1.56	1.52	1.67	00	1.52 1.65
7217•	11.00	•35	1.59	1.54	1.57	1.54	1.68	00	1.52 1.58
7251•	10.64	•38	1.54	1.52	1.54	1.59	1.54	00	1.54 1.59
7281•	11.21	•36	1.65	1.55	1.62	1.48	1.68	00	1.53 1.68
7313•	10.77	•40	1.55	1.53	1.55	1.52	1.55	00	1.55 1.56
7345•	10.90	•30	1.58	1.53	1.55	1.53	1.66	00	1.52 1.54

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PACK NO. 115
G.E. 12 A.H.

DEPTH OF DISCHARGE 15 PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C OPERAT PERIOD 90 MIN.

CYCLE NO. PACK VOLTAGE 3.60 CURRENT 1 2 3 4 5

14652•	6.15	3.58	1.24	1.23	1.24	1.23	1.22	1.22	1.22
14682•	6.14	3.56	1.25	1.23	1.24	1.23	1.23	1.23	1.22
14716•	6.10	3.59	1.23	1.22	1.22	1.22	1.21	1.21	1.21
14748•	6.13	3.57	1.24	1.23	1.23	1.23	1.24	1.24	1.22
14780•	6.14	3.57	1.23	1.22	1.22	1.22	1.24	1.24	1.23
14812•	6.14	3.57	1.24	1.23	1.23	1.23	1.24	1.24	1.22
14845•	6.12	3.56	1.26	1.25	1.25	1.25	1.26	1.27	1.25
14870•	6.10	3.58	1.22	1.22	1.22	1.22	1.23	1.23	1.21
14941•	6.12	3.56	1.24	1.22	1.22	1.22	1.23	1.24	1.22
14973•	6.16	3.57	1.23	1.22	1.22	1.22	1.24	1.24	1.23
15005•	6.19	3.56	1.24	1.23	1.23	1.23	1.26	1.25	1.25
15036•	6.15	3.56	1.24	1.22	1.22	1.22	1.25	1.24	1.23
15069•	6.15	3.57	1.23	1.22	1.22	1.22	1.24	1.24	1.26
15101•	6.19	3.55	1.24	1.23	1.23	1.23	1.25	1.25	1.26

END OF
DISCHARGE

14652•	7.66	1.47	1.54	1.64	1.43	1.62	1.47		
14683•	7.67	1.46	1.54	1.65	1.44	1.62	1.47		
14716•	7.67	1.46	1.51	1.67	1.45	1.64	1.46		
14748•	7.71	1.32	1.52	1.67	1.48	1.64	1.45		
14780•	7.66	1.48	1.50	1.65	1.46	1.62	1.48		
14813•	7.69	1.38	1.56	1.64	1.46	1.61	1.46		
14845•	7.67	1.47	1.52	1.65	1.46	1.62	1.46		
14909•	7.65	1.42	1.51	1.66	1.45	1.62	1.44		
14941•	7.68	1.35	1.54	1.66	1.47	1.61	1.47		
14972•	7.71	1.37	1.51	1.66	1.47	1.61	1.49		
15005•	7.68	1.48	1.49	1.63	1.50	1.61	1.49		
15036•	7.72	1.32	1.56	1.64	1.50	1.60	1.46		
15069•	7.74	1.24	1.50	1.65	1.46	1.60	1.58		
15101•	7.76	1.18	1.53	1.65	1.49	1.60	1.53		

END OF
CHARGE

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PACK NO. 124
S.E. 12 A.H.

TEST TEMPERATURE 0
DRAFT PERIOD 90 MIN.

PACK NO. 111
6•5 • 12 A.M.

PERCENT OF DISCHARGE 15 TEST TEMPERATURE 115
PERCENT OF RECHARGE 115 ORBIT PERIOD 3 HOURS

CYCLE	PACK NO.	PACK VOLTAGE	CURRENT	CELL Voltages				
				3	4	5	6	7
7232	6•21	2•76	1•75	1•25	1•26	1•24		
7264	6•14	3•74	1•74	1•24	1•25	1•24		
7296	6•19	3•60	1•74	1•24	1•25	1•24		
7338	6•19	3•76	1•74	1•24	1•25	1•24		
7369	6•19	3•60	1•74	1•24	1•25	1•24		
7392	6•22	3•76	1•74	1•24	1•25	1•24		
7423	6•17	3•76	1•74	1•24	1•25	1•24		
7455	6•17	3•76	1•74	1•24	1•25	1•24		
	6•3	2•82	1•62	1•62	1•62	1•62	1•62	1•62
	6•2	2•80	1•67	1•65	1•67	1•63	1•66	
	6•6	2•82	1•63	1•62	1•64	1•59	1•63	
	6•5	2•82	1•64	1•64	1•64	1•59	1•63	
	6•7	2•81	1•64	1•64	1•62	1•58	1•63	
	6•8	2•82	1•55	1•62	1•64	1•58	1•64	
	6•13	2•82	1•54	1•62	1•64	1•57	1•63	
	6•12	2•71	1•53	1•61	1•62	1•57	1•63	

99

PACK NO. 125
G.E. 12 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C
ORBIT PERIOD 3 HOURS

CYCLE NO. PACK VOLTAGE 6.60 CURRENT 6.60

	1	2	3	4	5
7237 •	5.95	1.21	1.21	1.21	1.21
7269 •	5.97	1.20	1.20	1.20	1.20
7301 •	5.98	1.20	1.20	1.20	1.20
7335 •	5.95	1.20	1.20	1.20	1.20
7364 •	5.97	1.19	1.19	1.19	1.19
7397 •	5.95	1.20	1.20	1.20	1.20
7428 •	5.95	1.20	1.20	1.20	1.20
7462 •	5.95	1.20	1.20	1.20	1.20

END OF
DISCHARGE

	1	2	3	4	5
7237 •	7.86	1.61	1.61	1.60	1.59
7269 •	7.92	1.51	1.63	1.62	1.61
7301 •	7.89	1.55	1.63	1.61	1.61
7335 •	7.75	1.44	1.59	1.58	1.58
7364 •	7.75	1.37	1.59	1.57	1.58
7397 •	7.81	1.35	1.62	1.59	1.60
7428 •	7.81	1.32	1.61	1.59	1.59
7462 •	7.81	1.34	1.61	1.60	1.61

END OF
CHARGE

100

PACK NO. 83
G.E. 12 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 125
TEST TEMPERATURE 25 C
ORBIT PERIOD 3 HOURS

CYCLE NO. PACK VOLTAGE 6.00 CURRENT 1 2 3 CELL Voltages 5

7368•	5.79	6.03	1.17	1.18	1.17	1.17	1.17
7400•	5.77	6.04	1.16	1.16	1.17	1.16	1.15
7434•	5.77	6.05	1.16	1.17	1.17	1.16	1.15
7463•	5.78	5.97	1.16	1.16	1.16	1.16	1.16
7496•	5.80	6.00	1.17	1.17	1.18	1.17	1.17
7527•	5.75	6.02	1.16	1.16	1.16	1.15	1.15
7559•	5.75	6.04	1.16	1.16	1.16	1.16	1.16

							END OF DISCHARGE
7368•	7.35	1.54	1.50	1.47	1.50	1.49	1.45
7400•	7.32	1.54	1.49	1.46	1.50	1.48	1.44
7434•	7.29	1.53	1.49	1.46	1.49	1.47	1.44
7463•	7.32	1.52	1.49	1.46	1.49	1.48	1.44
7496•	7.30	1.54	1.49	1.46	1.48	1.47	1.44
7527•	7.35	1.53	1.49	1.45	1.48	1.47	1.43
7559•	7.29	1.54	1.49	1.46	1.48	1.47	1.44

101

PACK NO. 86
G.E. 12 A.H.

DEPTH OF DISCHARGE 15
PERCENT OF RECHARGE 160
TEST TEMPERATURE 40 C
ORBIT PERIOD 3 HOURS

CYCLE NO. PACK VOLTAGE 3.60 CURRENT 1 2 3 CELL Voltages 5

CYCLE NO.	PACK VOLTAGE	3.60	CURRENT	1	2	3	4	5
7131•	5.59	3.61	1.15	1.12	1.10	1.13	1.12	
7163•	5.57	3.61	1.14	1.11	1.10	1.13	1.12	
7195•	5.60	3.60	1.15	1.12	1.10	1.13	1.12	
7229•	5.59	3.57	1.15	1.11	1.10	1.14	1.12	
7258•	5.58	3.56	1.15	1.10	1.09	1.13	1.12	
7291•	5.61	3.66	1.15	1.11	1.10	1.14	1.13	
7322•	5.59	3.58	1.15	1.11	1.10	1.14	1.13	
7354•	5.57	3.56	1.15	1.10	1.09	1.14	1.12	

END OF
DISCHARGE

CYCLE NO.	PACK VOLTAGE	3.60	CURRENT	1	2	3	4	5
7131•	7.16	1.17	1.44	1.43	1.43	1.45	1.43	
7163•	7.16	1.17	1.44	1.42	1.42	1.45	1.44	
7195•	7.16	1.17	1.44	1.43	1.42	1.45	1.43	
7229•	7.15	1.18	1.44	1.42	1.42	1.45	1.44	
7258•	7.17	1.17	1.44	1.42	1.42	1.45	1.44	
7291•	7.16	1.19	1.44	1.41	1.42	1.45	1.44	
7322•	7.17	1.17	1.44	1.41	1.41	1.46	1.43	
7354•	7.17	1.18	1.44	1.43	1.42	1.45	1.44	

END OF
CHARGE

102

PACK NO. 84
GOULD 20 A.H.

DEPTH OF DISCHARGE 15
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C
ORRIT PERIOD 90 MIN.

CYCLE NO. VOLTAGE PACK CURRENT

	6.00	1	2	3	4	5
14585•	5.94	6.01	1.19	1.23	1.21	1.19
14617•	5.90	6.07	1.18	1.21	1.20	1.17
14649•	5.90	6.01	1.19	1.23	1.21	1.18
14681•	5.84	6.03	1.17	1.22	1.17	1.20
14712•	5.86	6.01	1.18	1.22	1.17	1.21
14745•	5.79	6.04	1.20	1.23	1.21	1.24
14777•	5.76	6.01	1.20	1.24	1.20	1.24
14810•	5.69	6.09	1.15	1.20	1.15	1.19
14842•	5.70	6.10	1.16	1.20	1.15	1.19
14873•	5.67	6.04	1.17	1.21	1.17	1.21
14905•	5.73	6.08	1.18	1.22	1.17	1.22
14937•	5.69	6.09	1.18	1.22	1.18	1.21
14970•	5.74	6.05	1.19	1.22	1.19	1.22
15001•	5.68	6.04	1.17	1.21	1.17	1.21
15034•	5.66	6.10	1.18	1.22	1.17	1.21

END OF
DISCHARGE

END OF
DISCHARGE

	2.47	1.51	1.51	1.51	1.50	1.49	1.49	1.46
14585•	7.42	2.50	1.50	1.50	1.49	1.49	1.48	1.46
14617•	7.40	2.52	1.50	1.51	1.52	1.52	1.48	1.46
14649•	7.45	2.30	1.51	1.51	1.50	1.50	1.48	1.45
14681•	7.43	2.41	2.50	1.51	1.50	1.50	1.47	1.44
14712•	7.41	7.40	2.51	1.50	1.50	1.49	1.47	1.45
14745•	7.40	2.46	2.46	1.51	1.51	1.50	1.46	1.46
14777•	7.42	2.44	2.24	1.50	1.51	1.50	1.47	1.44
14810•	7.44	7.39	2.48	1.49	1.49	1.48	1.47	1.45
14842•	7.39	2.49	1.49	1.50	1.49	1.49	1.49	1.46
14873•	7.40	2.48	2.48	1.51	1.51	1.50	1.49	1.46
14905•	7.45	2.48	2.29	1.53	1.53	1.53	1.49	1.46
14937•	7.42	2.45	2.45	1.51	1.51	1.50	1.49	1.45
14970•	7.46	2.46	2.46	1.50	1.50	1.49	1.49	1.46
15001•	7.45	2.48	2.48	1.51	1.51	1.50	1.49	1.45
15034•	7.45	2.48	2.48	1.51	1.51	1.50	1.50	1.46

103

PACK NO. 80
GOULD 20 A.H.

DEPTH OF DISCHARGE 15
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C
OFF-RIT PERIOD 3 HOURS

CYCLE NO. PACK VOLTAGE 6.00 CURRENT 1 2 3 4 5

7298•	6.08	6.03	1.25	1.21	1.17	1.25	1.23		
7330•	6.06	6.01	1.25	1.22	1.18	1.25	1.24		
7373•	6.17	5.99	1.26	1.22	1.19	1.26	1.25		
7433•	6.15	5.97	1.26	1.22	1.19	1.26	1.26		
7435•	6.18	6.00	1.27	1.23	1.21	1.27	1.26		
7467•	6.15	5.00	1.26	1.23	1.19	1.26	1.26		
7498•	6.15	6.02	1.26	1.23	1.19	1.26	1.26		

7298•	7.52	6.83	1.50	1.51	1.53	1.50	1.52		
7330•	7.52	6.82	1.50	1.52	1.53	1.51	1.51		
7373•	7.86	6.98	1.53	1.60	1.62	1.56	1.56		
7403•	7.81	1.14	1.53	1.58	1.60	1.56	1.56		
7435•	7.83	1.21	1.54	1.59	1.61	1.57	1.57		
7467•	7.82	1.23	1.54	1.59	1.59	1.56	1.57		
7498•	7.81	1.26	1.54	1.59	1.59	1.57	1.57		

104

PACK NO. 94
GOULD 20 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C
ORBIT PERIOD 3 HOURS

CYCLE NO. PACK VOLTAGE 10.00

CURRENT 1 2 3 4 5

CYCLE NO.	PACK VOLTAGE	CURRENT 1	CURRENT 2	CURRENT 3	CURRENT 4	CURRENT 5
7191•	5.99	9.98	1.23	1.21	1.17	1.22
7223•	5.99	10.02	1.22	1.20	1.17	1.21
7280•	6.96	9.93	1.23	1.21	1.19	1.22
7344•	5.99	10.18	1.22	1.21	1.18	1.21
7375•	5.98	10.21	1.22	1.20	1.18	1.21

CYCLE NO.	PACK VOLTAGE	CURRENT 1	CURRENT 2	CURRENT 3	CURRENT 4	CURRENT 5
7191•	7.69	1.95	1.49	1.48	1.60	1.58
7223•	7.70	1.94	1.50	1.49	1.59	1.57
7280•	7.83	1.02	1.51	1.51	1.60	1.61
7344•	7.83	1.16	1.52	1.51	1.60	1.63
7375•	7.83	1.20	1.53	1.52	1.60	1.63

END OF
DISCHARGE

105

PACK NO. 102
GULTON 20 A.H.

DEPTH OF DISCHARGE 15
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C

CYCLE NO. PACK VOLTAGE 6.00 CURRENT 1

		1	2	3	4	5
7126.	4.74	6.05	1.19	•00	1.18	1.18
7158.	4.74	6.01	1.19	•00	1.18	1.19
7201.	4.79	5.97	1.20	•00	1.20	1.19
7231.	4.78	5.95	1.20	•00	1.19	1.19
7263.	4.81	5.98	1.20	•00	1.21	1.21
7295.	4.79	5.99	1.20	•00	1.19	1.20
7326.	4.78	6.03	1.19	•00	1.19	1.20

END OF
DISCHARGE

		1	2	3	4	5
7126.	6.13	1.22	1.58	•00	1.56	1.52
7158.	6.14	1.21	1.58	•00	1.56	1.52
7201.	6.15	1.37	1.61	•00	1.59	1.50
7231.	6.14	1.37	1.60	•00	1.58	1.50
7263.	6.06	1.39	1.57	•00	1.56	1.50
7295.	6.24	1.39	1.61	•00	1.58	1.55
7326.	6.28	1.39	1.62	•00	1.60	1.56

106

PACK NO. 116
GULTON 20 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C
ORBIT PERIOD 3 HOURS

CYCLE NO. PACK VOLTAGE 10.00 CURRENT 10.00

CELL VOLTAGES

	1	2	3	4	5
6970 •	5.84	9.76	1.25	1.19	1.11
7011 •	5.67	9.42	1.06	1.18	1.11
7051 •	5.91	9.97	1.24	1.19	1.11
7082 •	5.85	9.99	1.21	1.16	1.12
7115 •	5.86	9.99	1.17	1.14	1.11
7146 •	5.76	10.02	1.15	1.16	1.10

	1	2	3	4	5
6971 •	8.03	2.28	1.44	1.73	1.60
7011 •	7.62	1.25	1.42	1.58	1.55
7051 •	7.82	2.04	1.50	1.60	1.57
7083 •	7.83	2.37	1.45	1.62	1.59
7115 •	7.84	2.25	1.43	1.62	1.59
7146 •	7.78	1.94	1.44	1.61	1.58

END OF
DISCHARGE

END OF
CHARGE

107

PACK NO. 174
GU 1.25 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE
TEST TEMPERATURE -20 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGES	CURRENT A.H.	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
2483•	5.74	.61	1.15	1.18	1.16	1.17	1.10	
2514•	5.68	.61	1.16	1.17	1.15	1.17	1.09	
2547•	5.68	.62	1.15	1.17	1.15	1.17	1.09	
2579•	5.73	.62	1.16	1.18	1.16	1.17	1.11	
2626•	5.67	.63	1.18	1.20	1.17	1.21	1.12	
2690•	5.70	.62	1.14	1.17	1.16	1.17	1.10	
2722•	5.71	.62	1.15	1.18	1.16	1.17	1.10	
2754•	5.65	.61	1.16	1.17	1.15	1.17	1.06	
2786•	5.72	.61	1.15	1.17	1.16	1.17	1.10	
2817•	5.74	.61	1.16	1.18	1.17	1.18	1.11	
2850•	5.71	.62	1.16	1.17	1.16	1.17	1.11	
2882•	5.75	.61	1.16	1.18	1.16	1.18	1.12	
								END OF CHARGE
2483•	8.89	.99	1.83	1.74	1.75	1.75	1.81	
2514•	8.76	.99	1.76	1.75	1.75	1.75	1.81	
2547•	8.83	.98	1.83	1.74	1.75	1.75	1.81	
2579•	8.81	.99	1.85	1.73	1.75	1.74	1.81	
2626•	8.79	1.01	1.79	1.74	1.76	1.75	1.82	
2690•	8.76	1.01	1.78	1.73	1.74	1.74	1.81	
2722•	8.91	1.02	1.94	1.73	1.75	1.74	1.82	
2754•	8.89	1.01	1.82	1.76	1.77	1.77	1.84	
2786•	8.87	1.01	1.81	1.74	1.76	1.75	1.82	
2817•	8.96	1.01	1.93	1.73	1.73	1.73	1.80	
2850•	8.77	1.02	1.79	1.74	1.75	1.75	1.80	
2882•	8.78	1.01	1.83	1.73	1.74	1.74	1.79	

108

PACK NO. 388
GU 1.25 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE
TEST TEMPERATURE -20 C
ORBIT PERIOD 90 MIN.

CYCLE NO. VOLTAGES PACK CURRENT

NO.	1	2	3	4	5	CELL Voltages		END OF DISCHARGE
						1.00	1.00	
1913•	4.56	.61	1.17	1.10	1.17	1.15	.00	
1946•	4.52	.62	1.17	1.08	1.17	1.13	.00	
1978•	4.56	.61	1.18	1.09	1.17	1.15	.00	
2025•	4.64	.63	1.20	1.10	1.20	1.12	.00	
2089•	4.55	.62	1.16	1.09	1.17	1.13	.00	
2121•	4.57	.62	1.17	1.11	1.17	1.14	.00	
2153•	4.51	.62	1.17	1.06	1.17	1.12	.00	
2185•	4.56	.62	1.17	1.09	1.17	1.13	.00	
2216•	4.61	.62	1.17	1.13	1.17	1.15	.00	
2249•	4.57	.62	1.16	1.12	1.17	1.14	.00	
2281•	4.58	.61	1.17	1.11	1.17	1.14	.00	
								END OF CHARGE
1913•	7.14	.99	1.77	1.81	1.75	1.83	.00	
1946•	7.19	.99	1.79	1.83	1.76	1.83	.00	
1978•	7.12	.99	1.76	1.82	1.75	1.81	.00	
2025•	7.15	.99	1.76	1.82	1.75	1.82	.00	
2089•	7.12	1.00	1.76	1.80	1.74	1.81	.00	
2121•	7.10	.99	1.75	1.80	1.75	1.81	.00	
2153•	7.23	1.00	1.80	1.82	1.78	1.84	.00	
2185•	7.15	1.00	1.76	1.81	1.75	1.82	.00	
2216•	7.06	1.01	1.74	1.78	1.74	1.80	.00	
2249•	7.15	1.01	1.78	1.79	1.77	1.81	.00	
2281•	7.11	1.00	1.76	1.75	1.75	1.81	.00	

109

PACK NO. 308
GU 1.25 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE

TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK NO.	VOLTAGES	CURRENT	CELL VOLTAGES				
				1	2	3	4	5
2785.	7.0	3.2	2.0 24	1.46	1.47	1.48	1.48	1.46
2817.	5.96	.62	1.19	1.20	1.19	1.19	1.21	
2849.	6.01	.62	1.20	1.22	1.21	1.20	1.22	
2881.	6.85	.63	1.37	1.39	1.39	1.38	1.40	
2912.	5.99	.62	1.20	1.21	1.20	1.19	1.21	
2945.	5.98	.64	1.21	1.22	1.23	1.22	1.25	
2977.	5.99	.63	1.21	1.23	1.23	1.23	1.24	
3024.	6.10	.63	1.22	1.22	1.22	1.22	1.24	
3056.	6.05	.63	1.21	1.22	1.22	1.21	1.23	
3088.	6.04	.64	1.20	1.21	1.21	1.21	1.23	
3121.	6.04	.63	1.21	1.22	1.21	1.21	1.23	
3152.	6.04	.63	1.20	1.21	1.20	1.20	1.22	
3185.	6.01	.64	1.20	1.21	1.21	1.20	1.22	
2785.	8.62	1.26	1.68	1.72	1.77	1.77	1.73	
2817.	8.62	1.26	1.68	1.73	1.75	1.76	1.72	
2849.	8.70	1.26	1.67	1.75	1.81	1.79	1.73	
2881.	8.42	1.26	1.66	1.68	1.72	1.72	1.68	
2912.	8.64	1.26	1.68	1.75	1.76	1.78	1.72	
2945.	8.43	1.26	1.65	1.69	1.73	1.72	1.68	
2977.	8.54	1.26	1.66	1.71	1.76	1.76	1.71	
3024.	8.47	1.27	1.66	1.70	1.72	1.74	1.70	
3056.	8.58	1.27	1.67	1.72	1.76	1.76	1.72	
3088.	8.62	1.28	1.67	1.72	1.76	1.76	1.72	
3121.	8.59	1.27	1.66	1.73	1.77	1.75	1.72	
3152.	8.58	1.27	1.66	1.71	1.76	1.75	1.71	
3185.	8.54	1.28	1.66	1.71	1.75	1.75	1.71	

110

PACK NO. 198
GU 1.25 A.H.

DEPTH OF DISCHARGE 60
PERCENT OF RECHARGE
TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE NO. PACK VOLTAGES

CURRENT

1.5

1

2

3

CELL VOLTAGES

5

END OF
DISCHARGE

2785.	5.45	1.48	1.08	1.11	1.09	1.10	1.10
2817.	5.42	1.48	1.08	1.11	1.09	1.10	1.10
2849.	5.49	1.48	1.10	1.12	1.10	1.11	1.11
2881.	5.48	1.48	1.09	1.11	1.10	1.10	1.10
2912.	5.48	1.48	1.09	1.11	1.09	1.10	1.10
2945.	5.70	1.50	1.14	1.15	1.15	1.11	1.17
2977.	5.64	1.50	1.14	1.15	1.14	1.10	1.16
3024.	5.63	1.52	1.12	1.14	1.13	1.14	1.12
3056.	5.57	1.51	1.12	1.13	1.13	1.13	1.12
3088.	5.59	1.53	1.11	1.13	1.12	1.13	1.12
3121.	5.59	1.51	1.12	1.14	1.13	1.13	1.12
3152.	5.55	1.51	1.11	1.13	1.12	1.12	1.11
3185.	5.53	1.52	1.10	1.13	1.12	1.12	1.11

///

END OF
DISCHARGE

2785.	8.94	1.24	1.25	1.80	1.81	1.78	1.80	1.76
2817.	8.85	1.25	1.79	1.81	1.77	1.80	1.75	
2849.	8.86	1.24	1.79	1.79	1.76	1.79	1.75	
2881.	8.75	1.24	1.77	1.77	1.74	1.76	1.73	
2912.	8.87	1.24	1.79	1.79	1.76	1.78	1.75	
2945.	8.53	1.25	1.72	1.72	1.69	1.71	1.69	
2977.	8.56	1.24	1.74	1.73	1.70	1.72	1.70	
3024.	8.70	1.25	1.76	1.76	1.73	1.75	1.71	
3056.	8.79	1.26	1.79	1.79	1.76	1.78	1.73	
3088.	8.78	1.25	1.78	1.78	1.74	1.77	1.73	
3121.	8.71	1.26	1.77	1.77	1.74	1.76	1.72	
3152.	8.75	1.26	1.77	1.77	1.74	1.76	1.72	
3185.	8.73	1.26	1.77	1.78	1.74	1.76	1.72	

PACK NO. 239
GUE COUL 3.6 A.H.

DEPTH OF DISCHARGE 40
PERCENT OF RECHARGE
TEST TEMPERATURE 25 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	CELL Voltages					END OF DISCHARGE
			1	2	3	4	5	
4269	9.31	2.86	1.06	1.08	0.93	1.01	1.10	0.00
4301	9.23	2.85	1.04	1.09	0.91	1.00	1.09	0.00
4333	9.14	2.86	1.04	1.08	0.90	0.97	1.09	0.00
4365	9.14	2.87	1.05	1.08	0.90	0.95	1.08	0.00
4398	9.17	2.88	1.04	1.08	0.90	0.95	1.08	0.00
4429	8.89	2.87	1.00	1.06	0.86	0.93	1.05	0.00
4461	8.76	2.89	1.02	1.07	0.89	0.92	1.07	0.00
4492	9.04	2.85	1.01	1.06	0.88	0.96	1.05	0.00
4525	8.75	2.84	0.97	1.04	0.83	0.98	1.01	0.00
4556	8.77	2.84	0.99	1.05	0.85	0.99	1.03	0.00
4621	9.09	2.87	1.06	1.04	0.90	1.01	1.05	0.00
4652	9.01	2.87	1.02	1.04	0.91	1.00	1.04	0.00
4684	6.18	2.80	0.59	0.91	0.74	0.90	0.71	0.00
								0.88
4269	13.62	2.25	1.44	1.47	1.45	1.48	1.44	0.00
4301	13.90	2.24	1.44	1.47	1.45	1.48	1.44	0.00
4333	13.61	2.22	1.44	1.47	1.45	1.48	1.44	0.00
4365	13.61	2.20	1.44	1.47	1.45	1.48	1.44	0.00
4398	13.03	2.22	1.44	1.48	1.45	1.48	1.44	0.00
4429	12.98	1.19	1.44	1.47	1.45	1.47	1.44	0.00
4461	12.93	1.17	1.44	1.47	1.46	1.48	1.44	0.00
4492	12.94	1.20	1.43	1.46	1.45	1.46	1.43	0.00
4525	12.91	1.18	1.43	1.45	1.44	1.45	1.43	0.00
4556	12.93	1.17	1.44	1.46	1.45	1.46	1.44	0.00
4621	12.99	1.19	1.44	1.47	1.46	1.47	1.44	0.00
4652	12.95	1.19	1.44	1.47	1.46	1.47	1.44	0.00
4684	12.75	1.16	1.42	1.43	1.42	1.43	1.42	0.00

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PACK NO. 315
GULTON 4 A.H.

DEPTH OF DISCHARGE 15
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	CURRENT 1.20	CELL Voltages					END OF DISCHARGE
				1	2	3	4	5	
11390•	6.19	1.20	1.26	1.24	1.23	1.25	1.24	1.23	1.24
11423•	6.17	1.20	1.24	1.24	1.22	1.23	1.24	1.23	1.24
11452•	6.15	1.21	1.24	1.24	1.22	1.23	1.24	1.23	1.24
11486•	6.17	1.20	1.24	1.24	1.23	1.23	1.24	1.23	1.24
11513•	6.15	1.20	1.24	1.24	1.23	1.23	1.24	1.23	1.23
11551•	6.18	1.20	1.24	1.24	1.23	1.23	1.24	1.23	1.23
11582•	6.26	1.19	1.27	1.27	1.25	1.26	1.23	1.23	1.28
11646•	6.14	1.20	1.23	1.22	1.22	1.23	1.23	1.22	1.22
11678•	6.13	1.20	1.23	1.22	1.22	1.23	1.23	1.22	1.22
11724•	6.27	1.17	1.26	1.26	1.25	1.26	1.26	1.26	1.26
11757•	6.26	1.18	1.26	1.26	1.24	1.25	1.25	1.25	1.25
11789•	6.24	1.19	1.25	1.24	1.25	1.25	1.25	1.25	1.25
11295•	7.66	0.35	1.51	1.51	1.49	1.50	1.58	1.52	1.52
11421•	7.70	0.43	1.51	1.52	1.50	1.50	1.51	1.51	1.51
11454•	7.73	0.46	1.52	1.52	1.50	1.50	1.52	1.52	1.52
11486•	7.74	0.46	1.51	1.51	1.49	1.49	1.60	1.52	1.52
11518•	7.72	0.46	1.51	1.51	1.50	1.50	1.59	1.52	1.52
11551•	7.72	0.41	1.52	1.52	1.50	1.50	1.59	1.52	1.52
11582•	7.72	0.45	1.52	1.52	1.50	1.50	1.59	1.52	1.52
11646•	7.69	0.39	1.49	1.49	1.47	1.47	1.49	1.49	1.49
11678•	7.66	0.32	1.49	1.49	1.47	1.47	1.54	1.48	1.48
11724•	7.57	0.64	1.56	1.56	1.53	1.53	1.65	1.56	1.56
11757•	7.93	0.64	1.56	1.56	1.64	1.64	1.62	1.64	1.64
11789•	7.94	0.45	1.52	1.52	1.52	1.52	1.62	1.54	1.54

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PACK NO. 326
GULTON 4 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE NO. PACK VOLTAGE CURRENT 2.00 1

		CELL VOLTAGES	5	4	3	2	1	END OF DISCHARGE
11834•	5.94	1.97	1.20	1.20	1.20	1.20	1.20	1.19
11866•	5.94	1.98	1.20	1.20	1.19	1.19	1.20	1.20
11898•	5.95	1.97	1.20	1.21	1.20	1.20	1.20	1.20
11930•	5.95	1.98	1.20	1.21	1.19	1.19	1.19	1.19
11961•	5.94	1.97	1.20	1.20	1.19	1.19	1.19	1.19
11994•	5.88	1.98	1.22	1.22	1.22	1.22	1.22	1.23
12026•	5.80	1.97	1.22	1.22	1.22	1.22	1.22	1.23
12059•	5.91	2.00	1.19	1.19	1.18	1.18	1.18	1.19
12091•	5.92	2.00	1.19	1.20	1.19	1.18	1.18	1.19
12122•	5.92	1.99	1.19	1.20	1.19	1.19	1.19	1.19
12154•	5.95	1.99	1.20	1.20	1.19	1.19	1.19	1.20
12186•	5.93	2.00	1.19	1.21	1.19	1.19	1.19	1.19
12219•	5.95	1.99	1.20	1.20	1.19	1.19	1.19	1.20
12250•	5.94	1.98	1.19	1.20	1.18	1.19	1.19	1.19
12283•	5.95	2.00	1.19	1.20	1.19	1.19	1.19	1.19

		CELL VOLTAGES	5	4	3	2	1	END OF CHARGE
11834•	7.78	6.9	1.57	1.55	1.55	1.57	1.58	1.54
11866•	7.79	7.0	1.58	1.54	1.56	1.58	1.55	1.55
11898•	7.79	6.9	1.58	1.55	1.57	1.58	1.55	1.55
11930•	7.78	6.9	1.57	1.55	1.57	1.58	1.55	1.55
11961•	7.78	7.1	1.57	1.54	1.57	1.58	1.54	1.54
11994•	7.76	7.0	1.57	1.54	1.58	1.58	1.55	1.55
12026•	7.77	6.8	1.58	1.55	1.57	1.59	1.55	1.55
12059•	7.77	6.7	1.57	1.54	1.56	1.58	1.54	1.54
12091•	7.76	6.7	1.56	1.54	1.57	1.57	1.54	1.54
12122•	7.77	6.7	1.57	1.54	1.56	1.58	1.55	1.55
12154•	7.80	7.0	1.57	1.54	1.56	1.58	1.55	1.55
12186•	7.80	7.0	1.58	1.55	1.58	1.59	1.55	1.55
12219•	7.79	7.0	1.57	1.54	1.56	1.58	1.55	1.55
12250•	7.79	6.8	1.57	1.54	1.56	1.58	1.54	1.54
12283•	7.80	6.8	1.57	1.54	1.57	1.57	1.55	1.55

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PACK NO. 204
GULTON 4 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 125
TEST TEMPERATURE 25°C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES				
			1	2	3	4	5
11653•	5.84	2.00	1.18	1.19	1.18	1.18	1.17
11685•	5.79	1.99	1.17	1.18	1.18	1.15	1.17
11717•	5.81	1.99	1.17	1.18	1.15	1.15	1.17
11749•	5.80	1.99	1.17	1.19	1.18	1.15	1.17
11781•	5.76	1.98	1.16	1.17	1.18	1.14	1.16
11813•	5.63	1.97	1.19	1.20	1.22	1.18	1.20
11845•	5.77	2.00	1.16	1.15	1.18	1.15	1.16
11877•	5.75	1.99	1.15	1.16	1.16	1.15	1.16
11909•	5.75	1.98	1.16	1.16	1.17	1.15	1.16
11941•	5.78	1.99	1.17	1.17	1.19	1.15	1.17
11974•	5.69	1.98	1.15	1.15	1.16	1.13	1.15
12004•	5.73	1.99	1.16	1.16	1.17	1.14	1.15
12037•	5.75	1.99	1.16	1.16	1.17	1.14	1.16
12069•	5.75	1.98	1.16	1.16	1.18	1.14	1.15
			1.25	1.47	1.47	1.53	1.47
11653•	7.35	1.08	1.48	1.47	1.47	1.55	1.47
11685•	7.39	0.99	1.48	1.47	1.47	1.55	1.48
11717•	7.41	0.97	1.49	1.47	1.47	1.55	1.48
11749•	7.17	1.26	1.45	1.45	1.44	1.43	1.44
11781•	7.40	0.97	1.49	1.47	1.47	1.55	1.47
11813•	7.39	1.01	1.49	1.47	1.47	1.55	1.47
11845•	7.35	1.06	1.47	1.46	1.47	1.55	1.46
11877•	7.32	1.05	1.47	1.45	1.45	1.54	1.45
11909•	7.33	1.02	1.48	1.46	1.46	1.54	1.46
11941•	7.36	1.03	1.48	1.46	1.47	1.55	1.47
11974•	7.37	1.07	1.48	1.46	1.46	1.54	1.46
12004•	7.36	1.09	1.48	1.46	1.46	1.54	1.46
12037•	7.37	1.06	1.48	1.46	1.47	1.55	1.46
12069•	7.38	1.04	1.48	1.46	1.47	1.55	1.46

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PACK NO. 228
GULTON 4 A.H.

DEPTH OF DISCHARGE 15 TEST TEMPERATURE 40 C
PERCENT OF RECHARGE 160 ORBIT PERIOD 90 MIN.

CYCLE NO. VOLTAGE PACK CURRENT

	1.20	1	2	3	4	5	CELL VOLTAGES
11515.	5.96	1.22	1.20	1.21	1.19	1.20	
11547.	5.96	1.19	1.20	1.21	1.20	1.20	
11579.	5.96	1.19	1.20	1.21	1.20	1.20	
11611.	5.96	1.19	1.20	1.21	1.21	1.20	
11643.	5.95	1.16	1.20	1.21	1.20	1.19	
11675.	5.94	1.19	1.20	1.21	1.20	1.19	
11707.	5.82	1.19	1.22	1.23	1.23	1.22	
11739.	5.92	1.21	1.19	1.20	1.20	1.18	
11771.	5.90	1.21	1.19	1.20	1.19	1.18	
11803.	5.94	1.22	1.20	1.21	1.20	1.19	
11835.	5.96	1.21	1.20	1.21	1.21	1.19	
11868.	5.89	1.20	1.19	1.19	1.19	1.18	
11898.	5.92	1.20	1.19	1.20	1.19	1.18	
11931.	5.92	1.21	1.19	1.20	1.20	1.18	
11963.	5.94	1.19	1.20	1.21	1.19	1.19	

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END OF
DISCHARGE

END OF
CHARGE

•96	1.45	1.44	1.43	1.44	1.44	1.44	1.44
11515.	7.16	•71	•67	1.45	1.44	1.43	1.43
11547.	7.14	•67	•67	1.45	1.44	1.44	1.44
11579.	7.15	•67	•67	1.45	1.44	1.44	1.44
11611.	7.16	•68	•68	1.46	1.44	1.44	1.44
11643.	7.07	•95	1.44	1.44	1.42	1.42	1.42
11675.	7.16	•65	1.45	1.45	1.44	1.44	1.43
11707.	7.16	•67	1.46	1.44	1.44	1.45	1.44
11739.	7.16	•67	1.45	1.43	1.44	1.44	1.44
11771.	7.13	•62	1.45	1.43	1.43	1.43	1.43
11803.	7.17	•65	1.46	1.44	1.44	1.45	1.44
11835.	7.22	•78	1.47	1.45	1.45	1.46	1.45
11868.	7.14	•57	1.45	1.43	1.43	1.44	1.44
11898.	7.15	•57	1.45	1.44	1.43	1.44	1.44
11931.	7.15	•56	1.45	1.43	1.44	1.44	1.43
11963.	7.15	•57	1.45	1.43	1.44	1.44	1.44

PACK NO. 117
GULTON 5 A.H. NIMBUS

DEPTH OF DISCHARGE 15
PERCENT OF RECHARGE 110
TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE NO. VOLTAGE PACK CURRENT 1.50

			CELL VOLTAGES	1	2	3	4	5
7397.	6.12	1.48	1.25	1.24	1.24	1.25	1.17	
7429.	6.14	1.47	1.25	1.23	1.23	1.24	1.20	
746.	6.15	1.48	1.25	1.23	1.24	1.22		
7493.	6.22	1.49	1.27	1.25	1.25	1.22	1.25	
7525.	6.21	1.47	1.27	1.25	1.25	1.22	1.25	
7558.	6.03	1.50	1.23	1.21	1.21	1.23	1.15	
7590.	5.95	1.49	1.23	1.21	1.21	1.23	1.07	
7621.	5.78	1.48	1.23	1.22	1.22	1.23	0.90	
7653.	5.94	1.48	1.24	1.22	1.22	1.23	1.04	
7685.	5.81	1.49	1.23	1.23	1.24	1.23	0.93	
7718.	5.92	1.48	1.24	1.22	1.22	1.24	1.03	
7749.	5.82	1.48	1.23	1.22	1.22	1.23	0.94	
7782.	6.01	1.49	1.23	1.22	1.22	1.23	1.13	

			CELL VOLTAGES	1	2	3	4	5
7397.	7.99	0.83	1.61	1.57	1.65	1.57	1.61	
7429.	7.87	0.82	1.59	1.54	1.63	1.55	1.56	
7460.	7.85	0.84	1.59	1.54	1.62	1.55	1.55	
7493.	7.87	0.85	1.59	1.55	1.63	1.55	1.56	
7525.	7.88	0.83	1.60	1.55	1.64	1.56	1.56	
7558.	7.62	0.53	1.53	1.49	1.57	1.50	1.52	
7590.	7.64	0.52	1.52	1.49	1.56	1.50	1.57	
7621.	7.67	0.52	1.53	1.50	1.57	1.50	1.58	
7653.	7.75	0.57	1.54	1.51	1.57	1.51	1.59	
7685.	7.71	0.57	1.54	1.51	1.59	1.51	1.60	
7718.	7.71	0.58	1.54	1.51	1.58	1.51	1.60	
7749.	7.71	0.56	1.53	1.50	1.58	1.50	1.59	
7782.	7.66	0.54	1.54	1.51	1.58	1.51	1.55	

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PACK NO. 121
GULTON 5 A.H. NIMBUS

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 110
TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN

CYCLE NO.	PACK NO.	CURRENT VOLTAGES 2.50	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
6839•	4•80	2•47	.00	1•22	1•22	1•22	1•22	11•495
6871•	4•73	2•46	.00	1•20	1•20	1•20	1•20	11•378
6902•	4•72	2•46	.00	1•20	1•20	1•20	1•19	11•530
6934•	4•70	2•46	.00	1•19	1•19	1•20	1•19	11•589
6966•	4•46	2•47	.00	1•21	1•22	1•23	1•23	11•354
6998•	5•29	2•50	.00	1•33	1•34	1•35	1•33	13•474
7030•	4•68	2•47	.00	1•18	1•18	1•19	1•18	11•799
7062•	4•69	2•47	.00	1•18	1•19	1•19	1•19	11•870
7094•	4•71	2•47	.00	1•19	1•20	1•20	1•19	12•104
7127•	4•68	2•47	.00	1•18	1•18	1•19	1•18	12•326
7157•	4•69	2•48	.00	1•18	1•18	1•19	1•19	12•338
7190•	4•68	2•48	.00	1•18	1•19	1•19	1•18	12•350
7222•	4•70	2•47	.00	1•18	1•19	1•19	1•19	12•467
			1•38		1•51	1•51	1•50	12•315
6839•	5•99	.60	.00	1•50	1•52	1•49	1•51	11•835
6871•	5•98	.74	.00	1•49	1•50	1•48	1•48	11•799
69C2•	5•91	1•02	.00	1•50	1•52	1•49	1•50	11•905
6934•	5•98	.75	.00	1•50	1•52	1•49	1•50	12•081
6966•	5•97	.78	.00	1•50	1•52	1•49	1•50	12•666
6998•	5•98	.73	.00	1•49	1•52	1•49	1•50	12•139
7020•	5•92	.82	.00	1•49	1•50	1•48	1•49	12•221
7062•	5•96	.79	.00	1•49	1•51	1•49	1•50	12•420
7094•	5•99	.77	.00	1•50	1•53	1•50	1•51	12•818
7127•	5•98	.82	.00	1•50	1•52	1•49	1•51	12•771
7157•	5•99	.78	.00	1•50	1•52	1•49	1•50	12•689
7190•	5•99	.78	.00	1•49	1•52	1•49	1•50	12•816
7222•	5•99	.78	.00	1•49	1•52	1•49	1•50	

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PACK NO. 120
GULTON 5 A.H. NIMBUS

TEST TEMPERATURE 25 C
DEPTH OF DISCHARGE 15 PERCENT OF RECHARGE 120 ORBIT PERIOD 90 MIN.

CYCLE NO. PACK VOLTAGE CURRENT 1.50

	1	2	3	4	5
7475•	5.688	1.49	1.22	1.24	1.54
7507•	5.76	1.49	1.23	1.22	1.21
7539•	5.84	1.49	1.22	1.21	1.21
7586•	5.64	1.49	1.23	1.22	1.21
7618•	5.76	1.50	1.25	1.24	1.23
7649•	5.64	1.49	1.23	1.24	1.23
7682•	5.77	1.48	1.23	1.21	1.20
7713•	6.21	1.50	1.30	1.35	1.31
7746•	5.84	1.50	1.23	1.22	1.24
7778•	5.85	1.49	1.24	1.27	1.24
7809•	5.88	1.49	1.24	1.29	1.24
7841•	5.82	1.55	1.22	1.29	1.22
7874•	5.86	1.48	1.23	1.30	1.24

	1	2	3	4	5
7475•	7.34	0.91	1.44	1.44	1.44
7507•	7.34	0.91	1.43	1.58	1.47
7539•	7.33	0.91	1.43	1.56	1.47
7586•	7.52	0.92	1.42	1.76	1.47
7618•	7.45	0.90	1.42	1.72	1.47
7649•	7.33	0.90	1.43	1.59	1.42
7682•	7.38	0.90	1.43	1.62	1.47
7713•	7.34	0.90	1.42	1.59	1.44
7746•	7.37	0.91	1.43	1.60	1.44
7778•	7.37	0.91	1.44	1.60	1.45
7809•	7.38	0.91	1.44	1.60	1.45
7841•	7.38	0.91	1.43	1.60	1.47
7874•	7.35	0.92	1.43	1.58	1.48

END OF
DISCHARGE

END OF
CHARGE

119

PACK NO. 318
GULTON 5 A.H. NIMBUS

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 120
TEST TEMPERATURE 25 C
ORBIT PERIOD 90 MIN

CYCLE PACK CURRENT
NO. VOLTAGES 2.50 1 2 3 CELL VOLTAGES
PSIA

6849.	4.3	2.39	1.16	0.9	1.13	1.01	0.94	12.146
6881.	5.38	2.31	1.14	0.8	1.09	0.98	0.70	11.936
6913.	5.72	2.25	1.11	0.8	1.06	0.92	0.66	11.668
6961.	4.33	2.48	1.14	0.9	1.16	1.05	0.91	12.298
6992.	3.76	2.39	1.16	0.9	1.17	1.06	0.74	12.450
7024.	3.95	2.35	1.13	0.9	1.11	0.99	0.70	12.088
7056.	4.16	2.39	1.13	0.9	1.13	1.00	0.77	12.345
7088.	3.75	2.38	1.10	0.9	1.09	0.94	0.66	12.415
7120.	3.84	2.40	1.13	0.9	1.11	0.97	0.68	12.473
7153.	3.59	2.23	1.02	0.9	1.06	0.89	0.65	12.169
7183.	3.71	2.28	1.04	0.9	1.08	0.92	0.69	12.274
7216.	3.85	2.43	1.06	0.9	1.08	1.02	0.71	12.332
7248.	3.95	2.43	1.03	0.9	1.13	1.02	0.73	12.450

6849.	5.99	0.91	1.48	0.9	1.46	1.48	1.60	13.827
6881.	5.98	0.91	1.48	0.9	1.45	1.48	1.61	12.450
6913.	5.98	0.92	1.47	0.9	1.48	1.48	1.57	16.301
6961.	5.98	0.99	1.48	0.9	1.48	1.47	1.60	13.943
6992.	5.99	0.91	1.48	0.9	1.47	1.47	1.60	13.523
7024.	5.99	0.92	1.47	0.9	1.47	1.48	1.60	14.293
7056.	5.96	1.00	1.46	0.9	1.46	1.48	1.58	13.441
7088.	4.98	0.92	1.47	0.9	1.47	1.48	1.60	13.523
7120.	5.98	0.86	1.47	0.9	1.47	1.48	1.60	12.461
7153.	5.96	0.89	1.46	0.9	1.46	1.48	1.53	12.858
7183.	5.95	0.88	1.46	0.9	1.46	1.48	1.53	13.021
7216.	5.94	0.88	1.46	0.9	1.46	1.47	1.57	13.512
7248.	6.01	0.91	1.47	0.9	1.48	1.48	1.62	

120

END OF
DISCHARGE

END OF
CHARGE

PACK NO. 127
GULTON & CO. NITRUS

DEPTH OF DISCHARGE 15% TEST TEMPERATURE 40°C
PERCENT OF RECHARGE 130 ORBIT PERIOD 90 MIN.

CYCLE NO. PACK VOLTAGE 1.050 CURRENT 1.050

	1	2	3	4	5
7396 •	4.63	1.46	1.17	1.16	1.17
7492 •	4.66	1.46	1.18	1.18	1.18
7524 •	4.61	1.46	1.16	1.17	1.17
7556 •	4.55	1.46	1.11	1.16	1.16
7588 •	4.46	1.43	1.14	1.18	1.19
7649 •	3.9	1.42	1.11	1.12	1.08

	1	2	3	4	5
7396 •	5.72	3.4	1.44	1.44	1.42
7492 •	5.73	3.4	1.44	1.44	1.44
7524 •	5.72	3.3	1.44	1.44	1.44
7556 •	5.72	3.3	1.43	1.44	1.43
7588 •	5.72	3.1	1.44	1.44	1.43
7649 •	5.72	3.0	1.43	1.44	1.44

END OF
DISCHARGE

END OF
CHARGE

121

PACK NO. 244
GULTON 5.6 A.H. FRS

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115 TEST TEMPERATURE -20°C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGES	CELL Voltages					END OF DISCHARGE
		1	2	3	4	5	
3712•	5.70	2.80	1.16	1.14	1.14	1.14	1.14
3744•	5.66	2.80	1.15	1.15	1.14	1.14	1.14
3776•	5.66	2.80	1.15	1.14	1.15	1.14	1.14
3818•	5.67	2.81	1.15	1.14	1.14	1.14	1.14
3847•	5.69	2.81	1.15	1.14	1.14	1.14	1.14
3872•	5.67	2.81	1.15	1.14	1.14	1.14	1.14
3914•	5.55	2.81	1.15	1.14	1.14	1.14	1.14
3935•	5.62	2.82	1.15	1.14	1.14	1.14	1.14
3968•	5.68	2.77	1.14	1.14	1.14	1.14	1.14
4000•	5.67	2.77	1.14	1.14	1.14	1.14	1.14
4032•	5.68	2.76	1.14	1.14	1.14	1.14	1.14
4079•	5.74	2.76	1.14	1.15	1.15	1.15	1.15
4111•	5.81	2.76	1.14	1.17	1.17	1.17	1.17
3712•	7.66	7.78	1.54	1.54	1.55	1.55	1.54
3744•	7.66	7.79	1.54	1.54	1.55	1.55	1.54
3776•	7.66	7.77	1.54	1.54	1.54	1.54	1.54
3808•	7.65	7.78	1.54	1.54	1.55	1.54	1.54
3840•	7.12	1.60	1.48	1.44	1.44	1.43	1.43
3872•	7.65	7.6	1.54	1.54	1.54	1.54	1.53
3904•	7.65	7.5	1.54	1.54	1.55	1.54	1.54
3936•	7.64	7.5	1.54	1.53	1.54	1.54	1.54
3968•	7.62	7.52	1.54	1.54	1.53	1.53	1.53
4000•	7.65	7.52	1.54	1.54	1.54	1.54	1.54
4032•	7.67	7.4	1.55	1.54	1.56	1.54	1.55
4079•	7.74	7.7	1.56	1.55	1.56	1.55	1.56
4111•	7.83	7.9	1.57	1.57	1.59	1.57	1.58

122

PACK NO. 203
GULTON 5•6 A.H. FRS

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115

TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT
NO. VOLTAGES 2•80 1

CELL VOLTAGES
3 4 5

3880•	5•79	2•75	1•17	1•16	1•16	1•16
3912•	5•78	2•74	1•17	1•16	1•16	1•16
3944•	5•78	2•75	1•17	1•16	1•16	1•16
3976•	5•78	2•75	1•17	1•17	1•16	1•16
4009•	5•77	2•76	1•17	1•17	1•16	1•16
4041•	5•78	2•75	1•17	1•16	1•15	1•16
4072•	5•87	2•76	1•20	1•19	1•18	1•20
4103•	5•74	2•78	1•16	1•15	1•14	1•14
4136•	5•78	2•76	1•16	1•16	1•15	1•15
4167•	5•78	2•78	1•17	1•16	1•15	1•16
4200•	5•81	2•80	1•18	1•17	1•17	1•18
4232•	5•79	2•74	1•17	1•17	1•16	1•16
4263•	5•80	2•76	1•17	1•17	1•16	1•16
4295•	5•74	2•74	1•16	1•15	1•14	1•15
4328•	5•81	2•82	1•18	1•17	1•17	1•17

END OF
DISCHARGE

END OF
CHARGE

3880•	7•66	.99	1•54	1•54	1•52	1•53
3912•	7•66	.95	1•54	1•54	1•54	1•53
3944•	7•67	.91	1•54	1•54	1•53	1•53
3976•	7•67	.98	1•54	1•55	1•55	1•53
4009•	7•66	.92	1•54	1•55	1•53	1•53
4040•	7•68	.95	1•54	1•54	1•53	1•53
4072•	7•67	.94	1•54	1•54	1•54	1•53
4103•	7•68	.90	1•55	1•55	1•52	1•53
4136•	7•66	.93	1•54	1•54	1•54	1•53
4167•	7•67	.89	1•54	1•54	1•54	1•53
4200•	7•71	.99	1•55	1•55	1•55	1•54
4232•	7•73	.97	1•56	1•56	1•54	1•54
4263•	7•69	1•01	1•56	1•56	1•54	1•55
4295•	7•68	.94	1•55	1•54	1•54	1•53
4328•	7•67	.96	1•55	1•54	1•55	1•53

123

PACK NO. 276
GULTON 5.6 A.H. FRS

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 125
TEST TEMPERATURE 25 C
ORBIT PERIOD 90 MIN.

CYCLE NO. VOLTAGES

PACK CURRENT 2.80

1 2 3 4 5

END OF
DISCHARGE

	3968.	4.27	2.76	1.04	.00	1.06	1.11	1.11
	4000.	4.22	2.75	1.02	.00	1.04	1.10	1.10
	4032.	4.38	2.78	1.09	.00	1.08	1.13	1.13
	4064.	4.32	2.77	1.06	.00	1.06	1.12	1.11
	4095.	4.36	2.77	1.08	.00	1.08	1.12	1.12
	4128.	4.24	2.80	1.08	.00	1.10	1.14	1.15
	4160.	4.22	2.79	1.08	.00	1.08	1.13	1.15
	4193.	4.26	2.77	1.04	.00	1.05	1.10	1.11
	4225.	4.23	2.75	1.02	.00	1.06	1.09	1.10
	4256.	4.25	2.75	1.04	.00	1.05	1.10	1.10
	4288.	4.25	2.76	1.03	.00	1.05	1.11	1.11
	4304.	4.18	2.73	1.01	.00	1.07	1.06	1.08
	4335.	4.30	2.80	1.07	.00	1.06	1.10	1.10
	4368.	4.25	2.77	1.04	.00	1.05	1.10	1.10

END OF
DISCHARGE

	3968.	5.91	1.74	1.47	.00	1.50	1.48	1.48
	4000.	5.89	1.74	1.47	.00	1.49	1.47	1.47
	4032.	5.91	1.72	1.48	.00	1.50	1.48	1.48
	4064.	5.92	1.73	1.48	.00	1.50	1.48	1.48
	4095.	5.91	1.73	1.48	.00	1.50	1.48	1.48
	4128.	5.90	1.73	1.47	.00	1.51	1.48	1.48
	4160.	5.91	1.73	1.48	.00	1.50	1.48	1.48
	4193.	5.88	1.74	1.47	.00	1.49	1.47	1.47
	4225.	5.85	1.74	1.46	.00	1.49	1.46	1.46
	4256.	5.89	1.72	1.47	.00	1.50	1.48	1.48
	4288.	5.88	1.74	1.47	.00	1.49	1.48	1.48
	4304.	5.88	1.76	1.47	.00	1.49	1.47	1.47
	4335.	5.90	1.76	1.47	.00	1.49	1.47	1.47
	4368.	5.88	1.76	1.47	.00	1.50	1.47	1.48

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PACK NO. 242
GULTON 5•6 A•H. FRS

DEPTH OF DISCHARGE 25 TEST TEMPERATURE 40 C
PERCENT OF RECHARGE 150 ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT
NO. VOLTAGES 2•80 1 2 3 CELL VOLTAGES
5

CYCLE	PACK	CURRENT	NO.	VOLTAGES	1	2	3	CELL VOLTAGES	5
3798.	2.34	2.51		1.025	•11	•00	1.024	•00	
3798.	4.24	2.27		2.027	1.52	1.21	.00	1.51	.00

END OF
DISCHARGE

END OF
CHARGE

125

PACK NO. 232
GULTON 5.6 A.H. RS

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115 TEST TEMPERATURE -20 C
ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT
NO., VOLTAGES 2.80 1 2 3 4 5

							END OF DISCHARGE
3705•	5.67	2.79	1.15	1.15	1.15	1.14	
3737•	5.61	2.73	1.13	1.14	1.14	1.12	
3769•	5.66	2.70	1.15	1.15	1.14	1.14	
3801•	5.65	2.72	1.14	1.14	1.14	1.13	
3865•	6.53	1.11	1.35	1.34	1.36	1.37	1.37
3897•	5.49	2.72	1.16	1.16	1.17	1.15	
3930•	5.60	2.78	1.13	1.12	1.12	1.13	1.12
3962•	5.61	2.81	1.13	1.13	1.14	1.13	1.12
3993•	5.71	2.78	1.15	1.15	1.15	1.15	1.15
4025•	5.63	2.78	1.14	1.14	1.14	1.14	1.12
4041•	5.95	2.71	1.20	1.20	1.19	1.20	1.21
4072•	5.79	2.71	1.16	1.16	1.16	1.16	1.17
4105•	5.80	2.74	1.17	1.17	1.17	1.17	1.18
3705•	7.53	.71	1.51	1.54	1.52	1.52	1.50
3737•	7.53	.80	1.51	1.54	1.51	1.52	1.50
3769•	7.52	.81	1.51	1.54	1.52	1.52	1.50
3801•	7.53	.79	1.51	1.54	1.52	1.52	1.50
3865•	7.54	.32	1.51	1.53	1.52	1.52	1.50
3897•	7.54	.81	1.51	1.54	1.52	1.52	1.50
3930•	7.52	.81	1.51	1.54	1.51	1.51	1.50
3962•	7.50	.84	1.50	1.53	1.51	1.51	1.49
3993•	7.47	1.07	1.50	1.53	1.50	1.51	1.49
4025•	7.53	.83	1.51	1.54	1.52	1.52	1.51
4041•	7.98	.98	1.59	1.62	1.62	1.61	1.59
4072•	7.94	.90	1.58	1.64	1.59	1.59	1.58
4105•	7.99	.98	1.59	1.68	1.60	1.59	1.59

126

PACK NO. 390
GULTON 5.6 A.H. RS

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT
NO. VOLTAGES 2.80 1 2 3 4 5

3976•	5.86	2.82	1.19	1.17	1.18	1.16
4008•	5.99	2.81	1.20	1.18	1.19	1.17
4040•	5.86	2.92	1.19	1.17	1.18	1.16
4071•	5.87	2.81	1.19	1.17	1.18	1.16
4104•	5.95	2.85	1.22	1.16	1.19	1.17
4136•	5.94	2.82	1.22	1.19	1.20	1.20
4169•	5.84	2.92	1.16	1.16	1.17	1.15
4201•	5.85	2.83	1.18	1.16	1.17	1.15
4232•	5.85	2.81	1.19	1.17	1.17	1.16
4264•	5.86	2.82	1.19	1.17	1.17	1.16
4296•	5.85	2.83	1.19	1.18	1.18	1.16
4329•	5.88	2.81	1.19	1.17	1.18	1.16
4360•	5.87	2.80	1.19	1.17	1.17	1.16
4393•	5.91	2.82	1.20	1.18	1.19	1.17

END OF
DISCHARGE

END OF
CHARGE

3976•	7.90	1.09	1.59	1.58	1.58	1.57
4008•	7.86	1.05	1.58	1.57	1.57	1.56
4040•	7.68	1.02	1.59	1.57	1.58	1.60
4071•	7.87	1.04	1.58	1.57	1.57	1.56
4104•	7.88	1.00	1.56	1.57	1.56	1.55
4136•	7.88	0.96	1.54	1.57	1.58	1.61
4169•	7.89	0.94	1.56	1.57	1.55	1.60
4201•	7.84	1.01	1.57	1.56	1.57	1.55
4232•	7.84	0.94	1.56	1.56	1.57	1.59
4264•	7.84	0.97	1.57	1.56	1.57	1.55
4296•	7.86	1.00	1.58	1.58	1.59	1.61
4329•	7.89	1.09	1.58	1.57	1.58	1.60
4360•	7.87	1.04	1.58	1.57	1.57	1.55
4393•	7.88	1.03	1.59	1.57	1.58	1.60

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PACK NO. 396
GULTON 5.6 A.H. RS

DEPTH OF DISCHARGE 25 C
PERCENT OF RECHARGE 125
ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT
NO. VOLTAGES 2.8 C 1 2 3 4 5

	4025.	4056.	4089.	4121.	4153.	4185.	4217.	4281.	4213.	4345.	4392.	4424.
PACK CURRENT	4.47	4.44	4.35	4.45	4.44	4.47	4.61	4.29	4.38	4.40	4.41	4.42
VOLTAGES	2.8 C											
1	2.60	2.66	2.71	2.79	2.76	2.76	2.70	2.68	2.74	2.73	2.73	2.74
2	2.60	2.66	2.71	2.79	2.76	2.76	2.70	2.68	2.74	2.73	2.73	2.74
3	2.60	2.66	2.71	2.79	2.76	2.76	2.70	2.68	2.74	2.73	2.73	2.74
4	2.60	2.66	2.71	2.79	2.76	2.76	2.70	2.68	2.74	2.73	2.73	2.74
5	2.60	2.66	2.71	2.79	2.76	2.76	2.70	2.68	2.74	2.73	2.73	2.74

END OF
DISCHARGE

END OF
CHARGE

	4025.	4056.	4089.	4121.	4153.	4185.	4217.	4281.	4213.	4345.	4392.	4424.
CELL VOLTAGES	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
1	1.14	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
2	1.14	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
3	1.14	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
4	1.14	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
5	1.14	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12

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PACK NO. 213
GULTON HSI 6 A.H.

TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115

CYCLE NO. PACK VOLTAGE 3.00 CURRENT 1

	CELL VOLTAGES
8469•	2.99
8500•	6.01
8533•	6.00
8579•	6.04
8611•	6.02
8643•	6.08
8707•	6.05
8739•	6.01
8802•	6.01
8834•	6.01
8867•	6.01
8899•	6.02
8469•	7.68
8500•	7.66
8533•	7.74
8579•	7.81
8611•	7.80
8643•	7.79
8707•	7.76
8739•	7.61

END OF
DISCHARGE

	CELL VOLTAGES
8469•	1.21
8500•	1.21
8533•	1.21
8579•	1.22
8611•	1.22
8643•	1.24
8707•	1.21
8739•	1.21
8802•	1.21
8834•	1.21
8867•	1.21
8899•	1.21
8469•	1.73
8500•	1.76
8533•	0.87
8579•	0.97
8611•	0.91
8643•	0.95
8707•	0.92
8739•	0.91
8802•	1.73
8834•	1.76
8867•	0.97
8899•	0.91

END OF
DISCHARGE

	CELL VOLTAGES
8469•	1.21
8500•	1.21
8533•	1.21
8579•	1.22
8611•	1.22
8643•	1.24
8707•	1.21
8739•	1.21
8802•	1.21
8834•	1.21
8867•	1.21
8899•	1.21
8469•	1.56
8500•	1.53
8533•	1.55
8579•	1.57
8611•	1.56
8643•	1.58
8707•	1.57
8739•	1.57
8802•	1.53
8834•	1.57
8867•	1.58
8899•	1.57

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PACK NO. 59
GULTON 6 A.H. 3RD ELECTRODE R

DEPTH OF DISCHARGE 25
10 10 10 10 10

TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE AH OUT	PACK CURRENT	3RD ELECTRONE R	3RD ELECTRONE R					CELL VOLTAGES					
				1	2	3	4	5	1	2	3	4	5	
7239•	4.74	3.05	•108	•049	•000	•072	•068	•068	•00	•119	•118	•00	•119	•119
7272•	4.66	2.92	•201	•154	•003	•158	•149	•149	•00	•21	•21	•00	•21	•22
7303•	4.81	3.04	•123	•059	•000	•092	•093	•093	•00	•21	•20	•00	•20	•20
7347•	4.31	3.10	•129	•034	•000	•116	•105	•105	•00	•21	•21	•00	•21	•21
7381•	5.64	3.04	•116	•056	•000	•070	•078	•078	•00	•20	•20	•00	•20	•20
7412•	4.91	2.93	•180	•112	•000	•140	•156	•156	•00	•24	•24	•00	•24	•23
7445•	4.91	2.95	•191	•119	•000	•138	•153	•153	•00	•24	•24	•00	•24	•23
7477•	4.90	2.92	•165	•104	•000	•125	•139	•139	•00	•23	•23	•00	•23	•23
7507•	4.87	2.94	•179	•119	•000	•133	•153	•153	•00	•23	•23	•00	•23	•23
7542•	4.86	2.94	•175	•119	•000	•128	•141	•141	•00	•23	•23	•00	•22	•22
7573•	4.87	2.95	•163	•116	•000	•121	•134	•134	•00	•23	•23	•00	•22	•22
7606•	4.87	2.96	•160	•113	•000	•117	•129	•129	•00	•23	•23	•00	•22	•22
7638•	4.35	2.95	•172	•119	•000	•123	•139	•139	•00	•22	•22	•00	•21	•22

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CYCLE NO.	PACK VOLTAGE AH OUT	PACK CURRENT	3RD ELECTRONE R	3RD ELECTRONE R					CELL VOLTAGES					END OF DISCHARGE	
				1	2	3	4	5	1	2	3	4	5	1	2
7239•	5.73	0.4	•156	•000	•192	•200	•144	•144	•00	•43	•43	•00	•43	•43	
7272•	5.93	1.2	•125	•000	•154	•156	•148	•148	•00	•48	•48	•00	•48	•48	
7303•	5.74	0.5	•143	•000	•190	•193	•143	•144	•00	•43	•43	•00	•43	•43	
7347•	5.41	0.4	•120	•000	•190	•172	•135	•135	•00	•35	•35	•00	•35	•35	
7281•	5.75	0.5	•158	•000	•160	•176	•143	•143	•00	•43	•43	•00	•43	•42	
7412•	5.94	2.3	•139	•158	•000	•152	•159	•149	•150	•00	•49	•48	•00	•49	
7445•	5.84	1.5	•137	•161	•000	•156	•163	•146	•147	•00	•46	•46	•00	•46	
7477•	5.91	3.1	•125	•149	•000	•142	•150	•148	•149	•00	•48	•48	•00	•48	
7573•	5.85	2.1	•112	•150	•000	•134	•136	•146	•147	•00	•47	•47	•00	•47	
7606•	5.75	1.1	•119	•163	•000	•143	•152	•144	•144	•00	•44	•44	•00	•44	
7638•	6.19	1.58	•121	•147	•000	•128	•131	•153	•158	•00	•55	•54	•00	•55	

TRIP POINT

	AH IN	END OF CHARGE
7239.	5.68	•04
7272.	5.93	•12
7303.	5.65	•04
7347.	5.39	•04
7381.	5.66	•04
7412.	5.94	•23
7445.	5.84	•15
7477.	5.67	•06
7507.	6.27	•00
7542.	6.48	3.01
7573.	5.69	•67
7606.	5.65	•96
7638.	6.19	1.58
	•172	•152
	•000	•192
	•125	•125
	•000	•154
	•172	•143
	•121	•126
	•169	•152
	•139	•158
	•157	•137
	•141	•169
	•119	•092
	•129	•119
	•129	•119
	•163	•000
	•003	•161
	•000	•096
	•119	•105
	•129	•119
	•129	•119
	•138	•172
	•121	•147
	•121	•121
	•128	•000
	•153	•189
	•155	•155
	•152	•152
	•159	•159
	•152	•152
	•163	•156
	•179	•161
	•109	•096
	•120	•105
	•147	•100
	•142	•117
	•156	•119
	•150	•150
	•161	•172
	•131	•131
	•153	•147
	•158	•128
	•000	•196
	•156	•156
	•141	•141
	•135	•135
	•141	•141
	•150	•150
	•000	•142
	•141	•141
	•149	•150
	•000	•149
	•146	•146
	•000	•146
	•47	•47
	•46	•46
	•00	•42
	•42	•42
	•00	•42
	•57	•57
	•00	•56
	•56	•56
	•00	•55
	•55	•55
	•00	•54
	•60	•60
	•00	•62
	•62	•62
	•00	•42
	•42	•42
	•00	•42
	•42	•42
	•00	•54
	•55	•55

130e

PACK NO. 23
GULTON 6 A.H. 3RD ELECTRODE R

DEPTH OF DISCHARGE
12 18 20 29 24

TEST TEMPERATURE 25 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	3RD ELECTR.	VOLTAGES					CELL VOLTAGES					AH IN	END OF CHARGE
				1	2	3	4	5	1	2	3	4	5		
8578•	5•73	3•00	•132	•182	•159	•193	•316	•14	1•16	1•14	1•17	1•14	•000	END OF	DISCHARGE
8609•	5•68	3•01	•119	•175	•151	•191	•312	1•13	1•15	1•12	1•17	1•13	•000	•000	•000
8642•	5•77	3•01	•125	•179	•169	•199	•323	1•14	1•16	1•15	1•17	1•15	•000	•000	•000
8689•	5•98	2•94	•150	•178	•169	•152	•371	1•20	1•20	1•21	1•20	1•20	•000	•000	•000
8721•	5•81	3•14	•159	•171	•174	•200	•338	1•17	1•16	1•15	1•18	1•15	•000	•000	•000
8753•	5•82	2•95	•152	•171	•172	•196	•333	1•17	1•17	1•16	1•18	1•16	•000	•000	•000
8816•	3•85	2•67	•006	•029	•028	•043	•022	•64	•83	•85	•86	•68	•000	•000	•000
8849•	5•95	3•01	•169	•186	•140	•245	•385	1•19	1•19	1•19	1•20	1•19	•000	•000	•000
8578•	7•04	•01	•163	•220	•223	•246	•392	1•41	1•41	1•41	1•41	1•41	1•41	1•41	1•41
8609•	7•04	•01	•150	•216	•225	•248	•392	1•40	1•41	1•41	1•41	1•41	1•41	1•41	1•41
8642•	7•07	•01	•152	•213	•230	•249	•379	1•41	1•42	1•42	1•41	1•41	1•42	1•42	1•42
8689•	6•94	•01	•175	•206	•209	•189	•429	1•39	1•40	1•39	1•39	1•39	1•39	1•39	1•39
8721•	6•94	•01	•180	•209	•232	•249	•412	1•39	1•39	1•39	1•39	1•39	1•39	1•39	1•39
8753•	7•03	•01	•171	•196	•220	•236	•360	1•41	1•41	1•41	1•41	1•41	1•41	1•41	1•41
8849•	6•95	•01	•178	•203	•165	•259	•200	1•39	1•39	1•39	1•39	1•39	1•39	1•39	1•39
8578•	6•90	•01	•172	•232	•232	•250	•409	1•38	1•38	1•38	1•38	1•38	1•38	1•38	1•38
8609•	6•90	•01	•158	•228	•236	•250	•409	1•38	1•38	1•38	1•38	1•38	1•38	1•38	1•38
8642•	6•91	•00	•161	•227	•238	•256	•410	1•38	1•39	1•39	1•39	1•39	1•39	1•39	1•39
8689•	6•90	•01	•177	•212	•216	•192	•435	1•38	1•39	1•39	1•39	1•39	1•39	1•39	1•39
8721•	6•90	•01	•188	•212	•236	•252	•415	1•39	1•39	1•39	1•39	1•39	1•39	1•39	1•39
8753•	6•89	•01	•186	•213	•235	•246	•412	1•38	1•38	1•38	1•38	1•38	1•38	1•38	1•38
8816•	7•33	•05	•099	•147	•112	•151	•214	1•47	1•47	1•46	1•46	1•46	1•46	1•46	1•46
8849•	6•95	•01	•178	•203	•165	•259	•200	1•39	1•39	1•39	1•39	1•39	1•39	1•39	1•39

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PACK NO. 35
GULTON 6 A.H. 3RD ELECTRODE R 47 47 47 47

DEPTH OF DISCHARGE 15
ORBIT PERIOD 90 MIN.

CYCLE PICK CURRENT 3RD ELECT VOLTAGES
NO. VOLTS 1 2 3 4 5

CYCLE NO.	PICK VOLTS	CURRENT 1	3RD ELECT 2	VOLTAGES 3	4	5	CFLL VOLTAGES	1	2	3	4	5	END OF DISCHARGE
6572•	5•73	1•80	•112	•088	•083	•142	•166	1•14	1•15	1•16	1•15	1•16	•000
6604•	5•75	1•80	•114	•088	•090	•145	•167	1•14	1•15	1•16	1•16	1•16	•000
6636•	5•73	1•82	•116	•087	•090	•139	•162	1•14	1•15	1•15	1•15	1•15	•000
6667•	5•76	1•81	•116	•092	•092	•145	•170	1•15	1•16	1•15	1•16	1•16	•000
6701•	5•75	1•80	•116	•092	•092	•139	•158	1•14	1•15	1•15	1•16	1•16	•000
6731•	5•77	1•80	•113	•092	•019	•144	•169	1•15	1•16	1•15	1•17	1•16	•000
6764•	5•88	1•81	•098	•070	•059	•098	•123	1•11	1•13	1•12	1•22	1•11	•000
6794•	5•72	1•82	•108	•091	•080	•136	•139	1•14	1•15	1•14	1•16	1•16	•000
6825•	5•76	1•80	•112	•090	•089	•139	•148	1•15	1•16	1•15	1•16	1•16	•000
6859•	5•67	1•82	•099	•082	•076	•128	•145	1•13	1•13	1•13	1•15	1•15	•000
6891•	5•71	1•82	•100	•083	•072	•110	•146	1•14	1•15	1•14	1•15	1•15	•000
6924•	5•72	1•83	•106	•082	•078	•123	•150	1•14	1•15	1•14	1•15	1•15	•000
6935•	5•72	1•83	•097	•076	•075	•116	•142	1•13	1•14	1•13	1•15	1•14	•000
6987•	5•86	1•84	•126	•096	•098	•141	•169	1•18	1•18	1•17	1•18	1•17	•000

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TRIP POINT

6572•	•91	•05	•241	•192	•193	•461	•432	1•38	1•39	1•38	1•38	1•38	1•38
6604•	6•91	6•93	6•95	6•95	6•96	•199	•465	•458	•430	•436	•436	•432	1•38
6636•	6•93	6•93	6•94	6•94	6•95	•195	•199	•199	•199	•456	•433	•433	1•39
6667•	6•93	6•94	6•95	6•95	6•95	•192	•192	•199	•199	•462	•434	•434	1•39
6701•	6•93	6•93	6•93	6•93	6•93	•235	•235	•236	•199	•189	•451	•422	1•38
6731•	6•93	6•93	6•93	6•93	6•93	•235	•235	•219	•179	•166	•266	•329	1•39
6764•	6•97	6•97	6•97	6•97	6•97	•235	•235	•222	•176	•179	•263	•448	1•39
6794•	6•91	6•91	6•91	6•91	6•91	•235	•235	•222	•175	•175	•163	•259	1•39
6825•	6•93	6•93	6•93	6•93	6•93	•235	•235	•222	•175	•175	•163	•259	1•39
6859•	6•91	6•91	6•91	6•91	6•91	•235	•235	•222	•175	•175	•163	•259	1•39
6891•	6•90	6•90	6•90	6•90	6•90	•212	•212	•211	•169	•169	•243	•446	1•38
6924•	6•90	6•90	6•90	6•90	6•90	•211	•211	•210	•163	•163	•250	•446	1•38
6935•	6•91	6•91	6•91	6•91	6•91	•210	•210	•210	•163	•163	•242	•448	1•38
6987•	6•91	6•91	6•91	6•91	6•91	•210	•210	•210	•173	•173	•229	•446	1•38

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PACK NO. 216
GULTON 12 A.O.H.

DEPTH OF DISCHARGE 15 TEST TEMPERATURE 0 C
PERCENT OF RECHARGE 115 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES				
			1	2	3	4	5
8588•	6•24	3•57	1•27	1•28	1•28	1•26	1•26
8620•	6•20	3•60	1•25	1•25	1•26	1•24	1•24
8652•	6•18	3•57	1•24	1•25	1•25	1•24	1•24
8684•	6•17	3•65	1•24	1•24	1•25	1•25	1•24
8716•	6•16	3•62	1•24	1•25	1•25	1•25	1•24
8748•	6•14	3•62	1•26	1•26	1•27	1•27	1•27
8761•	6•14	3•65	1•26	1•26	1•27	1•27	1•26
8812•	6•12	3•56	1•23	1•24	1•22	1•23	1•23
8944•	6•12	3•62	1•23	1•24	1•24	1•24	1•23
8876•	6•16	3•50	1•24	1•24	1•25	1•25	1•24
8909•	6•14	3•64	1•24	1•24	1•24	1•24	1•24
8939•	6•14	3•61	1•24	1•24	1•24	1•24	1•24
8972•	6•14	3•59	1•23	1•24	1•24	1•23	1•23
9004•	6•14	3•58	1•23	1•24	1•24	1•24	1•24
8588•	7•73	1•43	1•12	1•12	1•12	1•12	1•12
8620•	7•32	1•06	1•06	1•06	1•06	1•06	1•06
8652•	7•32	1•06	1•06	1•06	1•06	1•06	1•06
8684•	7•16	2•64	1•42	1•42	1•43	1•42	1•42
8716•	7•31	1•50	1•50	1•50	1•50	1•50	1•50
8748•	7•30	1•10	1•10	1•10	1•10	1•10	1•10
8780•	7•30	1•95	1•95	1•95	1•95	1•95	1•95
8812•	7•24	1•21	1•48	1•48	1•45	1•45	1•45
8844•	7•31	1•20	1•51	1•51	1•47	1•47	1•47
8876•	7•35	1•27	1•52	1•52	1•47	1•47	1•47
8909•	7•32	1•20	1•52	1•52	1•46	1•46	1•46
8939•	7•31	1•22	1•51	1•47	1•45	1•45	1•45
8972•	7•32	1•25	1•51	1•47	1•45	1•45	1•45
9004•	7•31	1•18	1•51	1•51	1•47	1•47	1•47

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PACK NO. 301
GULTON 12 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT
NO. VOLTAGE 6.00 1

		CELL Voltages	5	4	3	2	1	6.00	VOLTAGE	PACK	CURRENT	NO.
9424•	4.81	6.00	1.22	1.22	1.18	1.20	1.20	6.00	4.73	4.73	4.57•	9457•
9489•	4.73	5.98	1.20	1.19	1.19	1.20	1.20	5.98	4.74	4.74	4.52•	9521•
9553•	4.74	5.97	1.20	1.18	1.18	1.20	1.20	5.97	4.74	4.74	4.53•	9585•
9649•	4.70	5.92	1.19	1.17	1.17	1.19	1.19	5.92	4.66	4.66	4.48•	9681•
9681•	4.73	5.93	1.20	1.16	1.16	1.20	1.20	5.93	4.73	4.73	4.57•	9713•
9745•	4.81	5.95	1.21	1.19	1.19	1.22	1.22	5.95	4.76	4.76	4.59•	9776•
9809•	4.75	5.96	1.21	1.19	1.19	1.22	1.22	5.96	4.74	4.74	4.59•	9841•

END OF
DISCHARGE

END OF
DISCHARGE

		CELL Voltages	5	4	3	2	1	6.00	VOLTAGE	PACK	CURRENT	NO.
9424•	3.9	2.37	1.59	1.56	1.56	1.56	1.56	2.37	4.73	4.73	4.57•	9457•
9489•	3.9	4.7	1.52	1.58	1.50	1.50	1.50	4.7	4.07	4.07	3.89•	9521•
9553•	11	4.3	1.51	1.58	1.50	1.50	1.50	11	6.08	6.08	5.92•	9585•
9585•	11	5.1	1.52	1.57	1.57	1.57	1.57	11	5.11	5.11	4.98•	9649•
9681•	12	4.9	1.51	1.56	1.56	1.56	1.56	12	5.12	5.12	4.98•	9713•
9745•	15	5.1	1.51	1.53	1.53	1.53	1.53	15	5.15	5.15	4.98•	9776•
9809•	16	4.8	1.48	1.56	1.53	1.53	1.53	16	5.16	5.16	4.98•	9841•

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PACK NO. 227
SULTON 12 A.H.

DEPTH OF DISCHARGE 25 TEST TEMPERATURE 25 C
PERCENT OF RECHARGE 125 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGE					END OF CHARGE
			1	2	3	4	5	
8721	5.57	5.92	1.16	1.11	1.10	1.13	1.13	1.12
8752	5.50	5.98	1.16	1.09	1.10	1.12	1.12	1.12
8784	5.51	6.02	1.15	1.08	1.10	1.10	1.12	1.12
8816	5.50	5.54	1.15	1.07	1.10	1.10	1.12	1.12
8849	5.53	6.05	1.16	1.05	1.11	1.13	1.13	1.13
8880	5.52	6.06	1.16	1.05	1.11	1.12	1.13	1.13
8912	5.21	6.02	1.16	1.05	1.08	1.09	1.09	1.09
8943	5.38	5.97	1.12	1.03	1.07	1.07	1.07	1.07
8976	5.49	5.97	1.12	1.04	1.11	1.12	1.13	1.13
9007	5.45	5.96	1.14	1.04	1.09	1.12	1.11	1.11
9040	5.43	6.00	1.14	1.04	1.12	1.13	1.13	1.13
9072	5.32	6.01	1.12	1.02	1.05	1.08	1.08	1.08
9103	5.38	6.00	1.12	1.02	1.07	1.11	1.11	1.11
9135	5.24	5.99	1.11	0.99	1.03	1.08	1.07	1.07
9166	5.31	6.04	1.11	1.00	1.08	1.09	1.09	1.09
8721	7.44	2.72	1.46	1.47	1.46	1.46	1.46	1.46
8752	7.42	2.68	1.46	1.47	1.47	1.47	1.46	1.46
8784	7.46	2.59	1.46	1.45	1.47	1.47	1.47	1.47
8816	7.40	2.50	1.47	1.47	1.46	1.47	1.47	1.47
8849	7.45	2.72	1.46	1.44	1.47	1.47	1.46	1.46
8880	7.54	3.60	1.48	1.67	1.48	1.48	1.48	1.48
8912	7.46	2.75	1.47	1.65	1.47	1.47	1.47	1.47
8943	7.42	2.67	1.46	1.63	1.46	1.45	1.46	1.46
8976	7.45	2.71	1.45	1.63	1.46	1.46	1.47	1.47
9007	7.45	2.91	1.46	1.63	1.47	1.47	1.46	1.46
9040	7.47	3.10	1.47	1.64	1.48	1.47	1.47	1.47
9072	7.47	2.96	1.47	1.63	1.47	1.47	1.47	1.47
9103	7.47	3.23	1.47	1.63	1.47	1.47	1.47	1.47
9135	7.46	3.14	1.47	1.63	1.47	1.47	1.47	1.47
9166	7.44	2.77	1.46	1.61	1.48	1.48	1.48	1.48

135

PACK NO. 78
GULTON 12 A.H.

DEPTH OF DISCHARGE 15
PERCENT OF RECHARGE 160
ORBIT PERIOD 90 MIN. C

CYCLE NO. VOLTAGE PACK CURRENT

	3.60	1	2	3	4	5
9379.	4.40	3.59	1.14	1.05	0.00	1.12
9411.	4.37	3.58	1.15	1.01	0.00	1.12
9443.	4.35	3.60	1.15	1.00	0.00	1.11
9475.	4.37	3.60	1.14	1.01	0.00	1.11
9508.	4.34	3.60	1.14	1.14	0.99	0.00
9539.	4.33	3.61	1.14	1.15	0.98	0.00
9571.	4.25	3.58	1.17	1.14	1.00	0.00
9602.	4.30	3.58	1.14	1.10	0.98	0.00
9635.	4.34	3.56	1.13	1.09	1.02	0.00
9666.	4.28	3.55	1.15	1.07	0.98	0.00
9699.	4.32	3.61	1.14	1.05	0.99	0.00
9731.	4.21	3.60	1.14	1.01	0.96	0.00
9762.	4.15	3.59	1.14	0.98	0.93	0.00
9794.	3.60	3.54	1.13	0.95	0.81	0.00

END OF
DISCHARGE

END OF
DISCHARGE

2.88	2.64	1.47	1.45	1.44	0.00	1.44
9379.	5.79	2.61	1.47	1.45	1.44	0.00
9411.	5.77	2.63	1.47	1.46	1.43	0.00
9443.	5.77	2.59	1.47	1.46	1.44	0.00
9475.	5.78	2.64	1.47	1.46	1.44	0.00
9508.	5.78	2.66	1.47	1.46	1.44	0.00
9539.	5.78	2.62	1.47	1.45	1.44	0.00
9571.	5.78	2.57	1.47	1.45	1.44	0.00
9602.	5.78	2.52	1.47	1.44	1.44	0.00
9635.	5.78	2.56	1.48	1.45	1.44	0.00
9666.	5.79	2.82	1.48	1.44	1.45	0.00
9699.	5.79	2.79	1.48	1.44	1.45	0.00
9731.	5.79	2.80	1.48	1.44	1.45	0.00
9762.	5.79	2.73	1.48	1.43	1.44	0.00
9794.	5.78					1.44

136

PACK NO. 69
YARDNEY 5 A.H.

DEPTH OF DISCHARGE 20
PERCENT OF RECHARGE • 3A
TEST TEMPERATURE 25 °C
ORBIT PERIOD 24 HRS.

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	DEPTH OF DISCHARGE	PERCENT OF RECHARGE	20 °C TEST TEMPERATURE	END OF DISCHARGE
301•	5.35	1.01	1.07	1.09	1.08	1.07
309•	5.18	1.01	1.09	1.10	1.11	1.12
317•	5.37	1.01	1.08	1.09	1.09	1.07
325•	5.25	1.01	1.09	1.10	1.11	1.10
			30			
301•	7.57	.00	1.42	1.43	1.68	1.42
309•	7.57	.00	1.42	1.42	1.69	1.41
317•	7.60	.00	1.42	1.43	1.71	1.68
325•	7.58	.00	1.42	1.42	1.70	1.67

137

PACK NO. 233
YARDNEY 5 A.H.

DEPTH OF DISCHARGE 20
PERCENT OF RECHARGE • 3A
ORBIT PERIOD 24 HRS.

CYCLE NO.	PACK VOLTAGE 1.00	CELL VOLTAGES					END OF DISCHARGE
		1	2	3	4	5	
301•	5.35	1.00	1.08	1.08	1.09	1.07	
309•	5.17	.99	1.09	1.09	1.10	1.10	
317•	5.36	1.00	1.08	1.08	1.08	1.08	
325•	5.24	1.00	1.10	1.09	1.10	1.10	
							END OF CHARGE
301•	7.61	.61	1.54	1.54	1.53	1.54	1.53
309•	7.61	.61	1.53	1.53	1.53	1.53	1.53
317•	7.63	.61	1.54	1.54	1.53	1.54	1.54
325•	7.62	.61	1.54	1.54	1.52	1.54	1.53

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PACK NO. 197
YARDNEY 12 AH AGCD

DEPTH OF DISCHARGE 17
PERCENT OF RECHARGE 130
TEST TEMPERATURE 0
ORBIT PERIOD 1.5 HRS.

CYCLE PACK CURRENT
NO. VOLTAGE 4.00

	1	2	3	4	5
2557•	6.52	3.98	1.29	1.31	1.32
2589•	6.46	3.98	1.27	1.32	1.32
2621•	6.57	3.98	1.31	1.33	1.33
2653•	6.56	3.98	1.30	1.32	1.32
2686•	6.70	8.81	1.34	1.35	1.35
2717•	6.37	3.98	1.17	1.20	1.22
2749•	6.26	4.08	1.13	1.30	1.34
2780•	5.30	3.98	1.06	1.07	1.07
2813•	6.69	3.92	1.34	1.35	1.35
2844•	6.71	3.86	1.35	1.35	1.36
2877•	5.18	3.95	1.00	1.05	1.07
2909•	6.03	3.99	1.07	1.11	1.07
2940•	6.24	3.98	1.07	1.26	1.32
2972•	5.67	3.98	1.07	1.06	1.18

END OF
DISCHARGE

	1	2	3	4	5
2557•	8.04	0.97	1.64	1.59	1.62
2589•	8.04	0.92	1.63	1.59	1.63
2621•	8.04	0.86	1.65	1.59	1.61
2653•	8.04	1.01	1.63	1.61	1.60
2686•	8.04	1.19	1.63	1.57	1.60
2717•	8.03	0.89	1.63	1.59	1.62
2749•	8.03	0.88	1.63	1.60	1.62
2780•	8.01	0.88	1.62	1.61	1.61
2813•	7.99	0.97	1.61	1.57	1.60
2844•	7.99	0.91	1.61	1.58	1.62
2877•	8.05	0.91	1.62	1.62	1.62
2909•	8.06	1.04	1.64	1.60	1.60
2940•	7.90	0.98	1.56	1.56	1.57
2972•	7.87	0.95	1.56	1.55	1.59

END OF
CHARGE

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PACK NO. 182
YARDNEY 12 AH AGZN

DEPTH OF DISCHARGE 25 TEST TEMPERATURE 25
PERCENT OF RECHARGE 130 ORBIT PERIOD 1.5 HRS.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES				
			1	2	3	4	5
3405•	5.25	5.93	1.07	1.06	1.03	1.06	1.07
3436•	5.18	5.91	1.07	1.08	0.96	1.05	1.06
3469•	5.07	5.99	1.06	1.07	0.88	1.04	1.05
3501•	5.12	5.99	1.06	1.08	0.92	1.04	1.05
3533•	4.92	5.89	1.06	1.07	0.74	1.03	1.05
3565•	5.19	5.90	1.07	1.07	0.98	1.05	1.05
3597•	5.09	5.91	1.08	1.09	0.95	1.07	1.09
3661•	4.87	6.00	1.06	1.06	0.70	1.02	1.05
3693•	5.24	6.03	1.07	1.08	1.00	1.05	1.06
3725•	5.20	5.96	1.07	1.08	0.97	1.04	1.06
3757•	5.32	6.05	1.08	1.08	1.05	1.07	1.07
3788•	5.24	5.91	1.07	1.08	1.02	1.06	1.06
3821•	5.11	5.94	1.07	1.07	0.92	1.03	1.05
3853•	5.04	5.97	1.07	1.07	0.85	1.03	1.05

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END OF
DISCHARGE

END OF
CHARGE

3405.	7.84	1.21	1.59	1.57	1.55	1.58
3436.	7.84	1.18	1.60	1.59	1.55	1.58
3469.	7.84	1.19	1.60	1.59	1.55	1.58
3501.	7.85	1.17	1.60	1.59	1.55	1.59
3533.	7.84	1.20	1.59	1.58	1.56	1.58
3565.	7.85	1.04	1.61	1.58	1.56	1.58
3597.	7.86	1.00	1.59	1.57	1.57	1.59
3661.	7.74	1.70	1.56	1.56	1.55	1.56
3693.	7.90	•43	1.57	1.55	1.63	1.61
3725.	7.99	•65	1.60	1.57	1.63	1.58
3757.	7.94	•87	1.59	1.57	1.66	1.57
3788.	7.81	•33	1.59	1.57	1.55	1.57
3821.	7.81	•40	1.59	1.57	1.56	1.57
3853.	7.76	•56	1.58	1.56	1.55	1.56
3900.	7.86	1.00	1.59	1.57	1.55	1.57

PACK NO. 103
G.E. 5 A.H. NIMBUS

DEPTH OF DISCHARGE 15
PERCENT OF RECHARGE 110
TEST TEMPERATURE 0 °C
ORBIT PERIOD 90 MIN.

CYCLE NO. PACK VOLTAGE CURRENT 1.50

CYCLE NO.	PACK VOLTAGE	CURRENT	1.50	1	2	3	4	5	CELL VOLTAGES
7571.	6.22	1.52	1.25	1.25	1.25	1.25	1.25	1.25	1.26
7603.	6.19	1.51	1.24	1.24	1.24	1.24	1.24	1.24	1.26
7635.	6.20	1.51	1.25	1.25	1.25	1.25	1.25	1.25	1.25
7666.	6.19	1.51	1.24	1.24	1.24	1.24	1.24	1.24	1.25
7699.	6.16	1.53	1.26	1.26	1.25	1.25	1.25	1.25	1.28
7731.	6.14	1.52	1.26	1.26	1.24	1.24	1.24	1.24	1.28
7764.	6.10	1.52	1.22	1.20	1.20	1.20	1.20	1.20	1.24
7796.	6.10	1.53	1.23	1.21	1.21	1.21	1.21	1.21	1.23
7827.	6.11	1.52	1.24	1.24	1.21	1.21	1.21	1.21	1.24
7859.	6.12	1.52	1.24	1.22	1.22	1.22	1.22	1.22	1.25
7891.	6.14	1.52	1.23	1.22	1.22	1.22	1.22	1.22	1.24
7924.	6.13	1.52	1.23	1.23	1.23	1.23	1.23	1.23	1.25
7955.	6.12	1.52	1.23	1.23	1.23	1.23	1.23	1.23	1.23
7988.	6.11	1.53	1.23	1.23	1.23	1.23	1.23	1.23	1.24

END OF
DISCHARGE

END OF
DISCHARGE

CYCLE NO.	PACK VOLTAGE	CURRENT	1.50	1	2	3	4	5	CELL VOLTAGES
7571.	7.78	0.53	1.57	1.52	1.52	1.52	1.52	1.52	1.55
7603.	7.78	0.54	1.57	1.47	1.64	1.64	1.64	1.57	1.57
7635.	7.77	0.65	1.57	1.49	1.63	1.63	1.63	1.57	1.55
7666.	7.74	0.68	1.57	1.47	1.63	1.63	1.63	1.56	1.55
7699.	7.74	0.69	1.57	1.46	1.64	1.64	1.64	1.57	1.55
7731.	7.74	0.69	1.57	1.45	1.64	1.64	1.64	1.58	1.55
7764.	7.44	0.46	1.51	1.41	1.58	1.58	1.58	1.46	1.51
7796.	7.42	0.48	1.51	1.41	1.59	1.59	1.59	1.44	1.51
7827.	7.44	0.49	1.53	1.41	1.59	1.59	1.59	1.43	1.52
7859.	7.47	0.51	1.53	1.43	1.60	1.60	1.60	1.44	1.53
7891.	7.49	0.50	1.52	1.43	1.60	1.60	1.60	1.44	1.52
7924.	7.46	0.50	1.52	1.44	1.59	1.59	1.59	1.43	1.52
7955.	7.47	0.49	1.52	1.43	1.59	1.59	1.59	1.42	1.52
7988.	7.46	0.48	1.53	1.44	1.60	1.60	1.60	1.41	1.52

END OF
CHARGE

END OF
CHARGE

PACK NO. 107
G.E. 5 A.H. NIMBUS

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 110
TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN

CYCLE NO.	PACK VOLTAGES	CURRENT 2.50	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
6943.	6.09	2.47	1.23	1.23	1.23	1.23	1.23	26.853
6975.	6.03	2.46	1.21	1.22	1.22	1.22	1.22	24.618
7007.	6.03	2.46	1.21	1.22	1.22	1.22	1.22	23.896
7039.	6.71	0.75	1.35	1.35	1.36	1.35	1.35	79.529
7071.	5.81	2.48	1.23	1.22	1.24	1.24	1.25	22.725
7103.	6.01	2.50	1.21	1.20	1.22	1.21	1.21	26.130
7135.	5.97	2.49	1.20	1.20	1.20	1.20	1.21	21.699
7167.	5.99	2.48	1.21	1.21	1.21	1.21	1.22	21.746
7199.	6.01	2.50	1.21	1.21	1.22	1.21	1.22	21.870
7232.	5.97	2.49	1.20	1.20	1.20	1.20	1.21	21.880
7262.	5.99	2.51	1.21	1.21	1.21	1.21	1.21	21.594
7295.	6.00	2.50	1.20	1.19	1.21	1.20	1.20	21.081
7327.	6.00	2.45	1.21	1.20	1.22	1.20	1.21	20.386
6943.	7.54	0.59	1.53	1.51	1.50	1.52	1.53	28.194
6975.	7.59	0.70	1.55	1.52	1.51	1.49	1.55	25.798
7007.	7.46	1.14	1.51	1.51	1.49	1.50	1.50	24.989
7039.	7.57	0.72	1.55	1.51	1.51	1.51	1.55	24.457
7071.	7.57	0.74	1.55	1.51	1.51	1.51	1.55	23.981
7103.	7.57	0.72	1.54	1.51	1.51	1.51	1.54	25.208
7135.	7.51	0.80	1.54	1.49	1.49	1.49	1.54	22.384
7167.	7.54	0.70	1.55	1.50	1.50	1.50	1.55	22.479
7199.	7.51	0.68	1.54	1.49	1.50	1.49	1.54	22.412
7232.	7.59	0.75	1.56	1.51	1.50	1.51	1.56	22.688
7262.	7.59	0.74	1.55	1.51	1.51	1.51	1.56	22.517
7295.	7.59	0.75	1.56	1.50	1.51	1.50	1.56	21.822
7327.	7.59	0.74	1.56	1.52	1.50	1.56	1.56	21.147

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PACK NO. 106
G.E. 5 A.H. NIMBUS

DEPTH OF DISCHARGE 15
PERCENT OF RECHARGE 120
TEST TEMPERATURE 25 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	CELL Voltages					END OF CHARGE
			1	2	3	4	5	
7563.	6.04	1.48	1.22	1.21	1.22	1.23	1.22	
7595.	6.02	1.49	1.21	1.21	1.21	1.22	1.22	
7627.	6.01	1.48	1.22	1.21	1.21	1.22	1.22	
7659.	6.03	1.48	1.22	1.22	1.21	1.22	1.22	
7692.	6.03	1.48	1.22	1.21	1.20	1.23	1.22	
7723.	6.03	1.48	1.22	1.21	1.21	1.23	1.22	
7755.	6.00	1.47	1.24	1.22	1.24	1.25	1.25	
7786.	6.01	1.49	1.21	1.20	1.22	1.22	1.22	
7850.	6.04	1.47	1.22	1.21	1.23	1.23	1.23	
7883.	6.07	1.48	1.21	1.20	1.21	1.22	1.23	
7915.	6.05	1.48	1.22	1.20	1.20	1.22	1.22	
7946.	6.03	1.49	1.21	1.20	1.19	1.22	1.22	
7978.	5.97	1.48	1.21	1.18	1.19	1.21	1.22	
8011.	6.04	1.47	1.22	1.20	1.20	1.22	1.22	
7563.	7.13	.90	1.40	1.43	1.42	1.45	1.44	
7595.	7.12	.90	1.44	1.43	1.42	1.44	1.43	
7627.	7.13	.90	1.44	1.44	1.42	1.44	1.44	
7659.	7.15	.90	1.44	1.44	1.42	1.44	1.44	
7692.	7.14	.90	1.44	1.44	1.42	1.45	1.43	
7723.	7.16	.90	1.44	1.44	1.42	1.45	1.44	
7755.	7.14	.90	1.44	1.43	1.43	1.45	1.44	
7786.	7.14	.90	1.44	1.43	1.43	1.44	1.44	
7850.	7.16	.89	1.44	1.43	1.43	1.45	1.44	
7883.	7.15	.90	1.45	1.44	1.43	1.45	1.45	
7915.	7.17	.90	1.45	1.43	1.42	1.45	1.45	
7946.	7.15	.90	1.44	1.43	1.41	1.45	1.44	
7978.	7.14	.90	1.44	1.42	1.41	1.44	1.44	
8011.	7.16	.90	1.44	1.43	1.42	1.45	1.45	

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PACK NO. 304
G.E. 5 A.H. NIMBUS

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 120
TEST TEMPERATURE 25 C
ORBIT PERIOD 90 MIN

CYCLE NO.	PACK VOLTAGES 2.50	CURRENT NO.	1	2	3	4	5	CELL VOLTAGES	PSIA	END OF DISCHARGE
								•00		
6844•	4.52	2.45	1.15	1.15	1.12	•00	•00	1.15	29.631	
6876•	4.44	2.47	1.14	1.14	1.06	•00	•00	1.14	28.997	
6908•	4.42	2.45	1.13	1.14	1.06	•00	•00	1.13	31.893	
6940•	4.40	2.52	1.13	1.13	1.06	•00	•00	1.12	31.608	
6972•	4.40	2.51	1.13	1.13	1.04	•00	•00	1.12	31.037	
6994•	4.30	2.50	1.12	1.12	1.02	•00	•00	1.08	32.031	
7036•	4.25	2.51	1.16	1.15	1.10	•00	•00	1.16	32.242	
7068•	4.29	2.49	1.12	1.10	1.01	•00	•00	1.09	32.020	
7100•	4.21	2.46	1.11	1.07	0.99	•00	•00	1.06	32.0253	
7132•	4.42	2.47	1.13	1.13	1.08	•00	•00	1.12	31.682	
7164•	4.51	2.50	1.15	1.14	1.12	•00	•00	1.14	30.709	
7197•	4.38	2.49	1.13	1.11	1.04	•00	•00	1.12	32.042	
7227•	4.37	2.49	1.14	1.11	1.02	•00	•00	1.13	31.175	
7260•	4.38	2.48	1.13	1.12	1.03	•00	•00	1.12	26.0291	
7292•	4.42	2.47	1.14	1.12	1.05	•00	•00	1.13	32.0168	
6844•	5.85	1.03	1.47	1.49	•00	•00	•00	1.46	27.0253	
6876•	5.83	1.08	1.46	1.47	•00	•00	•00	1.46	29.853	
6908•	5.84	1.03	1.46	1.47	•00	•00	•00	1.46	31.069	
6940•	5.86	1.01	1.47	1.47	•00	•00	•00	1.47	31.460	
6972•	5.79	1.25	1.45	1.46	•00	•00	•00	1.45	31.090	
6994•	5.85	0.95	1.47	1.49	•00	•00	•00	1.46	31.597	
7036•	5.86	0.95	1.47	1.47	•00	•00	•00	1.47	31.502	
7068•	5.83	1.01	1.46	1.46	•00	•00	•00	1.46	32.0168	
7100•	5.80	1.08	1.46	1.46	•00	•00	•00	1.46	32.0242	
7132•	5.84	0.99	1.46	1.47	•00	•00	•00	1.46	32.0147	
7164•	5.87	1.00	1.48	1.47	•00	•00	•00	1.47	26.0830	
7197•	5.87	1.02	1.47	1.47	•00	•00	•00	1.47	32.0221	
7227•	5.87	1.02	1.47	1.47	•00	•00	•00	1.48	31.301	
7260•	5.86	1.02	1.47	1.47	•00	•00	•00	1.47	31.0777	
7292•	5.87	0.98	1.47	1.47	•00	•00	•00	1.47	30.625	

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PACK NO. 114
G.E. 5 A.H. NIMBUS

CYCLE NO.	PACK VOLTAGES	PACK CURRENT	DEPTH OF DISCHARGE	TEST TEMPERATURE 40 °C				
				1	2	3	4	5
6598•	3•15	2•44	1•12	1•05	•00	1•03	•00	51•288
6630•	3•07	2•42	1•12	1•01	•00	•99	•00	51•406
6662•	3•08	2•42	1•12	1•02	•00	•99	•00	51•470
6694•	3•14	2•45	1•13	1•06	•00	1•01	•00	51•427
6726•	3•08	2•45	1•11	1•01	•00	1•01	•00	51•652
6758•	2•99	2•40	1•09	•99	•00	•96	•00	52•069
6790•	3•10	2•51	1•18	1•14	•00	1•18	•00	52•304
6822•	3•07	2•45	1•13	1•04	•00	•94	•00	51•523
6854•	3•22	2•48	1•10	1•04	•00	1•12	•00	52•026
6886•	3•29	2•15	1•14	1•08	•00	1•11	•00	51•951
6918•	3•28	2•51	1•15	1•06	•00	1•12	•00	52•476
6951•	3•01	2•45	1•09	•95	•00	1•00	•00	52•187
6981•	3•09	2•49	1•07	•97	•00	1•08	•00	52•508
7014•	2•81	2•44	1•04	•89	•00	•92	•00	51•588
7046•	3•18	2•46	1•10	1•03	•00	1•08	•00	52•700
6598•	4•38	1•64	1•46	1•49	•00	1•46	•00	52•294
6630•	4•38	1•65	1•46	1•48	•00	1•46	•00	52•529
6662•	4•39	1•64	1•46	1•49	•00	1•46	•00	52•540
6694•	4•39	1•64	1•46	1•49	•00	1•46	•00	52•572
6726•	4•32	1•64	1•44	1•46	•00	1•44	•00	52•551
6758•	4•40	1•65	1•47	1•49	•00	1•46	•00	53•203
6790•	4•40	1•64	1•47	1•49	•00	1•46	•00	53•043
6822•	4•40	1•65	1•47	1•49	•00	1•45	•00	52•518
6854•	4•42	1•64	1•46	1•51	•00	1•47	•00	53•471
6886•	4•43	1•63	1•47	1•50	•00	1•47	•00	53•514
6918•	4•42	1•63	1•47	1•49	•00	1•46	•00	53•695
6951•	4•39	1•63	1•47	1•48	•00	1•46	•00	53•332
6981•	4•41	1•64	1•46	1•49	•00	1•46	•00	53•685
7014•	4•40	1•62	1•46	1•48	•00	1•46	•00	52•658
7046•	4•42	1•62	1•47	1•50	•00	1•46	•00	53•974

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PACK NO. 60
G.E. 12 A.H. 3RD ELECTRODE R

DEPTH OF DISCHARGE 25 TEST TEMPERATURE 0 C
3 3 3 ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK CURRENT AH OUT	VOLTAGE 6.60	3RD ELECTR. VOLTAGES					CFLL VOLTAGES				
			1	2	3	4	5	1	2	3	4	5
4874 •	6.01	6.07	• 056	• 056	• 019	• 013	• 016	• 016	• 017	1.21	1.20	1.20
4906 •	6.02	6.10	• 071	• 063	• 021	• 016	• 013	• 013	• 013	1.21	1.20	1.20
4936 •	6.03	6.04	• 061	• 056	• 019	• 019	• 019	• 019	• 019	1.21	1.21	1.20
4977 •	6.05	6.06	• 063	• 062	• 021	• 021	• 021	• 021	• 021	1.21	1.21	1.20
4982 •	6.02	6.02	• 052	• 052	• 015	• 015	• 015	• 018	• 018	1.22	1.21	1.20
4984 •	6.05	6.15	• 031	• 031	• 026	• 026	• 017	• 019	• 027	1.18	1.19	1.28
4986 •	6.02	6.14	• 059	• 059	• 026	• 026	• 017	• 019	• 029	1.19	1.20	1.28
5098 •	6.05	6.19	• 112	• 078	• 021	• 021	• 021	• 019	• 019	1.23	1.22	1.22
5113 •	6.05	6.23	• 139	• 079	• 021	• 021	• 023	• 023	• 023	1.22	1.22	1.21
5162 •	6.02	6.13	• 105	• 105	• 063	• 063	• 015	• 019	• 012	1.21	1.21	1.21
5194 •	6.01	6.22	• 139	• 072	• 019	• 019	• 029	• 017	• 017	1.21	1.21	1.20
5226 •	6.09	6.24	• 120	• 069	• 015	• 015	• 032	• 019	• 019	1.21	1.20	1.19
5258 •	6.02	6.20	• 141	• 071	• 015	• 015	• 026	• 016	• 016	1.21	1.20	1.20
5291 •	6.02	6.20	• 139	• 071	• 015	• 015	• 022	• 012	• 012	1.21	1.20	1.20
5322 •	6.01	6.24	• 141	• 072	• 017	• 017	• 032	• 020	• 020	1.21	1.20	1.20

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CYCLE NO.	PACK CURRENT AH OUT	VOLTAGE 6.60	3RD ELECTR. VOLTAGES					CFLL VOLTAGES					TRIP POINT
			1	2	3	4	5	1	2	3	4	5	
4874 •	2.91	• 099	• 122	• 121	• 058	• 315	• 401	1.49	1.49	1.48	1.50	1.51	1.51
4906 •	2.00	• 106	• 106	• 126	• 060	• 303	• 401	1.49	1.50	1.49	1.50	1.50	1.50
4938 •	1.74	• 109	• 109	• 126	• 067	• 320	• 406	1.50	1.51	1.50	1.50	1.50	1.50
4971 •	2.61	• 126	• 143	• 067	• 067	• 312	• 412	1.49	1.50	1.49	1.49	1.49	1.49
5002 •	1.69	• 197	• 126	• 058	• 086	• 269	• 392	1.46	1.46	1.48	1.47	1.47	1.46
5034 •	1.48	• 136	• 175	• 086	• 099	• 320	• 392	1.49	1.51	1.51	1.52	1.49	1.49
5066 •	2.37	• 222	• 241	• 099	• 100	• 327	• 400	1.49	1.50	1.50	1.50	1.51	1.51
5098 •	2.95	• 242	• 239	• 100	• 084	• 302	• 401	1.49	1.50	1.49	1.49	1.50	1.50
5131 •	2.09	• 232	• 209	• 084	• 076	• 292	• 393	1.49	1.50	1.49	1.50	1.50	1.49
5162 •	2.11	• 199	• 198	• 076	• 074	• 299	• 395	1.50	1.51	1.51	1.51	1.51	1.51
5194 •	2.15	• 210	• 209	• 074	• 059	• 281	• 396	1.49	1.51	1.49	1.49	1.50	1.50
5226 •	1.62	• 192	• 181	• 059	• 059	• 313	• 392	1.48	1.48	1.49	1.48	1.48	1.48
5258 •	1.44	• 204	• 190	• 059	• 059	• 297	• 392	1.48	1.48	1.48	1.48	1.48	1.49
5291 •	2.65	• 188	• 194	• 059	• 188	• 282	• 396	1.49	1.51	1.49	1.50	1.49	1.49
5322 •	1.28	• 180	• 188	• 059	• 188	• 282	• 396	1.49	1.51	1.49	1.50	1.49	1.49

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PACK NO. 48
G.E. 12 A.H.

3RD ELECTRONE R 3 3 3 3

DEPTH OF DISCHARGE 40
TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE AH	CURRENT AH	DEPTH OF DISCHARGE	3RD FLECT VOLTAGFS	CELL VOLTAGES	END OF DISCHARGE
	NO.	VOLTAGE	9.60	1 2 3 4 5	1 2 3 4 5	• 000
4388•	5.64	9.58	• 090	• 057	• 021	• 000
4421•	5.63	9.57	• 088	• 059	• 025	• 000
4452•	5.62	9.43	• 086	• 061	• 032	• 000
4484•	5.73	9.45	• 086	• 092	• 038	• 000
4516•	5.69	9.43	• 086	• 069	• 040	• 000
4548•	5.79	9.45	• 086	• 069	• 029	• 000
4581•	5.79	9.47	• 086	• 062	• 033	• 000
4612•	5.73	9.42	• 085	• 096	• 015	• 000
4644•	5.72	9.40	• 098	• 094	• 018	• 000
4676•	5.63	9.39	• 082	• 087	• 005	• 000
4708•	5.62	9.41	• 085	• 090	• 071	• 000
4740•	5.73	9.44	• 082	• 089	• 053	• 000
4772•	5.70	9.42	• 098	• 089	• 075	• 000
4804•	5.65	9.41	• 082	• 089	• 079	• 000
4836•	5.67	9.41	• 098	• 090	• 085	• 000

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PACK NO.	PACK VOLTAGE AH	CURRENT AH	DEPTH OF DISCHARGE	3RD FLECT VOLTAGFS	CELL VOLTAGES	TRIP POINT
	NO.	VOLTAGE	9.60	1 2 3 4 5	1 2 3 4 5	• 000
4388•	7.32	7.15	3.01	• 223	• 402	• 419
4421•	7.30	7.17	3.42	• 225	• 198	• 419
4452•	7.34	7.34	3.54	• 222	• 419	• 422
4484•	7.34	7.34	3.54	• 222	• 422	• 425
4516•	7.29	7.69	2.35	• 225	• 416	• 429
4548•	7.15	7.15	3.01	• 223	• 408	• 429
4580•	7.17	7.17	3.42	• 225	• 409	• 421
4612•	7.36	7.36	5.65	• 214	• 412	• 421
4644•	7.28	7.28	2.62	• 237	• 412	• 428
4676•	7.33	7.26	2.60	• 223	• 203	• 413
4708•	7.26	7.26	2.43	• 229	• 201	• 412
4740•	7.32	7.32	3.44	• 221	• 196	• 399
4772•	7.30	7.30	3.24	• 231	• 199	• 412
4804•	7.31	7.30	3.30	• 233	• 203	• 409
4836•	7.34	7.32	3.62	• 232	• 199	• 409

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PACK NO. 338
G.E./G.U. 6 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE

TEST TEMPERATURE 40 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					END OF DISCHARGE				
			1	2	3	4	5					
3866•	7.16	3.01	1.20	.07	.78	.00	.03	1.22	1.16	1.26	.01	.01
3888•	7.14	3.01	1.20	.07	.77	.00	.03	1.22	1.16	1.26	.01	.00
3899•	6.77	3.08	1.15	.07	.73	.00	.05	•00	•03	1.24	.00	.00
3931•	6.46	2.99	1.34	.04	.88	.00	.01	.00	.02	1.35	.01	.04
3963•	6.44	2.98	1.34	.03	.86	.00	.02	.00	.03	1.35	.00	.04
3996•	5.69	3.01	1.08	.08	.76	.00	.06	.00	.06	1.23	.01	.01
4028•	5.42	3.00	0.83	.07	.76	.00	.06	.00	.06	1.23	.01	.01
4059•	5.97	3.00	1.19	.07	.79	.00	.05	.00	.05	1.25	.00	.00
3856•	8.49	.87	1.41	.72	.91	.00	.01	1.40	1.41	1.48	.01	.01
3888•	8.49	.85	1.41	.72	.90	.00	.01	1.41	1.41	1.48	.01	.00
3899•	6.96	.36	1.39	.58	.89	.00	.00	.00	1.41	.00	.00	.00
3931•	7.00	.40	1.40	.68	.90	.00	.02	.00	.01	1.42	.00	.00
3963•	6.97	.34	1.40	.68	.89	.00	.01	.00	.01	1.40	.00	.00
3996•	6.94	.29	1.39	.66	.87	.00	.00	.00	.00	1.38	.01	.01
4028•	6.94	.28	1.39	.67	.87	.00	.00	.00	.00	1.38	.01	.01
4059•	6.94	.26	1.39	.66	.87	.00	.01	.00	.00	1.39	.00	.00

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PACK NO. 243
SONOTONE 3 A.H.

DEPTH OF DISCHARGE 15
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	PACK CURRENT	CELL VOLTAGES					END OF DISCHARGE
			1	2	3	4	5	
6223•	6.05	.90	1.22	1.23	1.22	1.23	1.20	
6254•	6.03	.90	1.22	1.22	1.22	1.23	1.20	
6287•	6.01	.91	1.21	1.22	1.22	1.22	1.19	
6319•	6.03	.90	1.22	1.22	1.22	1.23	1.20	
6351•	6.02	.90	1.22	1.22	1.22	1.23	1.19	
6383•	6.02	.91	1.21	1.21	1.21	1.21	1.21	
6415•	5.86	.71	1.22	1.24	1.23	1.24	1.22	
6479•	5.94	.91	1.20	1.20	1.19	1.20	1.19	
6511•	5.99	.90	1.21	1.21	1.20	1.21	1.20	
6543•	6.01	.90	1.22	1.21	1.22	1.22	1.20	
6575•	6.01	.90	1.21	1.21	1.21	1.22	1.20	
6606•	6.00	.90	1.21	1.22	1.21	1.22	1.20	
6639•	6.01	.90	1.21	1.21	1.21	1.22	1.20	
6661•	6.01	.90	1.21	1.21	1.21	1.22	1.20	
52	7.71	.19	1.47	1.47	1.47	1.48	1.52	
6223•	7.69	.22	1.47	1.47	1.47	1.48	1.51	
6254•	7.69	.22	1.47	1.47	1.47	1.48	1.50	
6287•	7.68	.23	1.47	1.51	1.51	1.51	1.51	
6319•	7.68	.23	1.47	1.51	1.51	1.51	1.51	
6351•	7.67	.25	1.47	1.51	1.51	1.51	1.51	
6383•	7.71	.52	1.41	1.43	1.43	1.43	1.51	
6415•	7.74	.17	1.47	1.52	1.49	1.49	1.52	
6479•	7.67	.25	1.46	1.54	1.49	1.49	1.54	
6511•	7.71	.21	1.47	1.50	1.49	1.49	1.51	
6543•	7.75	.20	1.48	1.51	1.51	1.51	1.51	
6575•	7.76	.20	1.49	1.52	1.51	1.51	1.50	
6606•	7.75	.20	1.49	1.51	1.50	1.50	1.50	
6639•	7.74	.22	1.49	1.52	1.52	1.52	1.52	
6661•	7.74	.22	1.49	1.52	1.52	1.52	1.52	

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PACK NO. 231
SONOTONE 3 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 115
TEST TEMPERATURE 0 C
ORRIT PERIOD 90 MIN.

CYCLE PACK CURRENT
NO. VOLTAGE 1.50 1 2 3 4 5

6238•	5•75	1•49	1•18	1•17	1•18	1•18	1•18	1•18	1•18
6269•	5•75	1•49	1•18	1•16	1•17	1•17	1•17	1•17	1•17
6302•	5•70	1•51	1•18	1•16	1•17	1•17	1•17	1•17	1•17
6334•	5•75	1•49	1•18	1•17	1•18	1•18	1•18	1•18	1•18
6365•	5•76	1•49	1•18	1•16	1•17	1•18	1•18	1•18	1•18
6398•	5•74	1•50	1•18	1•16	1•17	1•17	1•17	1•17	1•17
6431•	5•66	1•51	1•22	1•20	1•22	1•22	1•22	1•22	1•22
6494•	5•69	1•52	1•18	1•15	1•17	1•17	1•17	1•17	1•17
6526•	5•76	1•52	1•19	1•16	1•18	1•18	1•18	1•18	1•18
6558•	5•79	1•48	1•20	1•17	1•17	1•20	1•19	1•19	1•19
6590•	5•76	1•48	1•19	1•17	1•19	1•19	1•19	1•19	1•19
6621•	5•76	1•47	1•19	1•17	1•17	1•18	1•18	1•18	1•18
6654•	5•75	1•49	1•19	1•16	1•18	1•18	1•18	1•18	1•18
6686•	5•75	1•48	1•19	1•16	1•18	1•18	1•18	1•18	1•18

END OF
DISCHARGE

END OF
CHARGE

6238•	7•65	•34	1•54	1•54	1•54	1•54	1•54	1•54	1•54
6269•	7•63	•43	1•54	1•54	1•53	1•53	1•53	1•53	1•53
6302•	7•63	•34	1•54	1•53	1•53	1•53	1•53	1•53	1•53
6334•	7•64	•40	1•55	1•55	1•55	1•55	1•55	1•55	1•55
6366•	7•62	•41	1•54	1•54	1•54	1•54	1•54	1•54	1•54
6398•	7•66	•87	1•42	1•42	1•42	1•42	1•42	1•42	1•42
6430•	7•63	•45	1•53	1•52	1•52	1•52	1•52	1•52	1•52
6494•	7•59	•50	1•52	1•52	1•52	1•52	1•52	1•52	1•52
6526•	7•59	•51	1•53	1•53	1•53	1•53	1•53	1•53	1•53
6558•	7•67	•44	1•55	1•54	1•54	1•56	1•54	1•54	1•54
6590•	7•68	•41	1•55	1•54	1•54	1•56	1•54	1•54	1•55
6621•	7•66	•44	1•54	1•54	1•54	1•55	1•54	1•54	1•54
6654•	7•67	•44	1•55	1•54	1•54	1•56	1•54	1•54	1•54
6686•	7•64	•41	1•54	1•53	1•53	1•55	1•53	1•53	1•53

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PACK NO. 203
SONOTONE 3 A.H.

DEPTH OF DISCHARGE 25
PERCENT OF RECHARGE 125
TEST TEMPERATURE 25
ORBIT PERIOD 90 MIN.

CYCLE NO.	PACK VOLTAGE	CURRENT	1.50	CELL Voltages				
				1	2	3	4	5
6561•	5•74	1•50	1•17	1•16	1•11	1•17	1•16	1•16
6593•	5•74	1•50	1•17	1•17	1•11	1•17	1•17	1•16
6625•	5•74	1•50	1•17	1•18	1•11	1•17	1•17	1•17
6657•	5•75	1•50	1•17	1•18	1•12	1•17	1•17	1•17
6690•	5•75	1•50	1•17	1•17	1•12	1•17	1•17	1•16
6721•	5•76	1•50	1•17	1•17	1•12	1•17	1•17	1•16
6756•	5•62	1•49	1•19	1•19	1•15	1•20	1•20	1•20
6784•	5•73	1•51	1•16	1•16	1•12	1•16	1•16	1•16
6817•	5•71	1•50	1•16	1•17	1•10	1•16	1•16	1•16
6848•	5•74	1•50	1•16	1•17	1•11	1•17	1•17	1•17
6881•	5•70	1•50	1•17	1•18	1•12	1•18	1•18	1•18
6913•	5•71	1•50	1•16	1•17	1•10	1•16	1•17	1•17
6944•	5•70	1•50	1•15	1•17	1•10	1•16	1•16	1•16
6976•	5•70	1•50	1•16	1•16	1•10	1•15	1•16	1•16
7009•	5•73	1•50	1•17	1•17	1•10	1•16	1•17	1•17
6561•	7•41	•95	•95	1•49	1•49	1•50	1•50	1•48
6593•	7•40	•95	•95	1•48	1•49	1•50	1•50	1•47
6625•	7•43	•95	1•49	1•50	1•51	1•51	1•48	1•48
6657•	7•45	•95	1•50	1•50	1•51	1•51	1•49	1•49
6690•	7•43	•95	1•49	1•50	1•51	1•51	1•48	1•48
6721•	7•45	•95	1•50	1•50	1•51	1•51	1•48	1•48
6756•	7•43	•95	1•49	1•50	1•51	1•51	1•47	1•47
6784•	7•36	•95	1•47	1•48	1•50	1•49	1•47	1•47
6817•	7•37	•94	1•47	1•48	1•49	1•49	1•47	1•47
6848•	7•38	•94	1•47	1•49	1•50	1•50	1•47	1•47
6881•	7•37	•95	1•48	1•49	1•50	1•50	1•47	1•47
6913•	7•39	•95	1•48	1•49	1•50	1•50	1•48	1•48
6944•	7•37	•95	1•47	1•49	1•50	1•49	1•47	1•47
6976•	7•37	•95	1•47	1•48	1•50	1•49	1•47	1•47
7009•	7•40	•95	1•48	1•49	1•51	1•51	1•48	1•48

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PACK NO. 226
SONOTONE 3 A.H.

DEPTH OF DISCHARGE 15 TEST TEMPERATURE 40 C
PERCENT OF RECHARGE 160 ORBIT PERIOD 90 MIN.

CYCLE PACK CURRENT
NO. VOLTAGE C.90 1 2 3 4 5

								CELL Voltages		
								1 2 3 4 5		
5927•	5•37	.90	1•18	1•18	1•19	1•19	1•18	1•18	1•08	
5959•	4•29	.90	1•04	1•18	1•19	1•19	1•18	1•19	1•08	END OF DISCHARGE
5986•	4•42	.89	1•08	1•21	1•22	1•22	1•21	1•22	1•19	
6018•	4•47	.86	1•16	1•21	1•22	1•22	1•21	1•22	1•17	
6051•	4•53	.86	1•08	1•18	1•18	1•18	1•18	1•18	1•12	
6083•	4•48	.91	1•04	1•18	1•18	1•18	1•18	1•18	1•10	
6114•	4•30	.90	•99	1•18	1•18	1•19	1•18	1•19	•98	
6129•	4•47	.92	1•11	1•18	1•18	1•18	1•18	1•18	1•03	
6162•	4•37	.91	1•02	1•18	1•18	1•19	1•18	1•19	1•02	
6193•	4•23	.90	•91	1•18	1•18	1•18	1•18	1•18	•98	
6226•	4•06	.90	•80	1•18	1•18	1•18	1•18	1•18	•94	
										END OF CHARGE
5927•	7•16	.71	1•43	1•44	1•44	1•45	1•44	1•45	1•45	
5959•	7•12	.62	1•41	1•44	1•44	1•44	1•44	1•44	1•44	
5986•	5•74	.72	1•41	1•44	1•44	1•45	1•44	1•45	1•44	
6018•	5•74	.73	1•42	1•45	1•45	1•46	1•45	1•46	1•46	
6051•	5•73	.72	1•41	1•44	1•44	1•45	1•44	1•45	1•46	
6083•	5•74	.69	1•42	1•45	1•45	1•45	1•45	1•45	1•45	
6114•	5•72	.72	1•41	1•45	1•45	1•46	1•45	1•46	1•45	
6129•	5•76	.72	1•44	1•45	1•45	1•46	1•45	1•45	1•46	
6162•	5•77	.72	1•43	1•45	1•45	1•46	1•45	1•46	1•46	
6193•	5•75	.70	1•42	1•45	1•45	1•46	1•45	1•46	1•45	
6226•	5•75	.71	1•42	1•45	1•45	1•46	1•45	1•46	1•46	

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COULOMETER SONOTONE DEPTH OF DISCHARGE 30 ORBIT PERIOD 90 MINUTES TEST TEMPERATURE 25° C

COULOMETER 5 A.H.

CYCLE NO.	PACK VOLTAGE	CURRENT	CTM	CELL VOLTAGES				
				1	2	3	4	5
10400	5.53	.300	-0.089	1.14	1.11	1.14	1.12	1.11
10440	5.51		-0.090	1.14	1.11	1.14	1.11	1.11
10480	5.46		-0.098	1.14	1.11	1.14	1.10	1.10
10520	5.45		-0.103	1.14	1.11	1.13	1.10	1.10
10560	5.52		-0.085	1.14	1.12	1.14	1.11	1.11
10600	5.43		-0.100	1.14	1.11	1.13	1.09	1.09
10640	5.46		-0.087	1.13	1.11	1.13	1.09	1.09
10680	5.38		-0.080	1.12	1.10	1.12	1.08	1.07
10720	5.52		-0.090	1.15	1.12	1.15	1.10	1.10
10760	5.44		-0.080	1.13	1.11	1.13	1.09	1.08
10800	5.34		-0.091	1.12	1.10	1.12	1.07	1.06
10840	5.40		-0.083	1.13	1.10	1.12	1.08	1.07
10880	5.52		-0.085	1.15	1.13	1.15	1.11	1.09

END OF DISCHARGE

TIME TO
START OF
TRICKLE
CHARGE

END OF CHARGE

PACK NO. 92
SONOTONC 5 A.H.

DEPTH OF DISCHARGE 25
STABISITER
NO. VOLTAGE 2.50

CYCLE NO.	PACK CURRENT	CELL Voltages					TEST TEMPERATURE 0 C	ORBIT PERIOD 90 MIN.
		1	2	3	4	5		
5518•	5.38	2.50	1.04	1.13	1.11	1.10	1.03	
5582•	5.32	2.49	1.02	1.12	1.08	1.09	1.02	
5615•	5.36	2.49	1.03	1.12	1.08	1.10	1.04	
5646•	5.61	2.49	1.09	1.14	1.10	1.13	1.09	
5678•	5.28	2.46	0.91	1.13	1.10	1.11	1.06	
5709•	5.14	2.52	0.91	1.09	1.05	1.11	0.99	
5742•	5.18	2.49	0.94	1.07	1.05	1.11	1.00	
5773•	5.27	2.49	1.03	1.09	1.08	1.12	0.97	
5788•	3.43	2.50	1.04	1.11	1.09	1.09	0.87	
		5.00	1.52	1.52	1.52	1.52	1.54	1.60
5518•	7.65	4.97	1.52	1.51	1.52	1.52	1.55	1.58
5582•	7.64	4.98	1.52	1.51	1.50	1.52	1.54	1.57
5615•	7.62	4.98	1.51	1.51	1.50	1.52	1.54	1.57
5646•	7.87	4.98	1.59	1.59	1.57	1.54	1.54	1.66
5678•	8.02	4.97	1.64	1.61	1.58	1.58	1.65	
5709•	8.01	4.97	1.53	1.61	1.58	1.57	1.64	
5742•	7.96	4.96	1.63	1.60	1.56	1.57	1.61	
5773•	7.98	4.96	1.63	1.60	1.57	1.57	1.64	
5788•	8.11	5.03	1.64	1.62	1.60	1.58	1.72	

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PACK NO. 322
SONOTONIC 5 A.H.

DEPTH OF DISCHARGE 40
STABISTER
NO. VOLTAGE 4.00

CYCLE NO.	PACK VOLTAGE	CURRENT	CELL VOLTAGES					TEST TEMPERATURE O ORBIT PERIOD 90 MIN.
			1	2	3	4	5	
4894•	3.01	4.05	•97	1.04	•00	1.04	•00	1.04
4926•	2.98	4.05	•97	1.04	•00	1.03	•00	1.03
4958•	3.02	4.06	•99	1.04	•00	1.04	•00	1.04
4990•	2.80	4.07	•97	1.04	•00	1.05	•00	1.05
5021•	2.95	4.05	•95	1.03	•00	1.02	•00	1.02
5054•	3.21	4.08	•99	1.11	•00	1.07	•00	1.07
5086•	3.08	4.07	1.03	1.07	•00	1.06	•00	1.06
5119•	3.00	4.03	•99	1.04	•00	1.02	•00	1.02
5151•	2.98	3.99	•97	1.02	•00	1.04	•00	1.04
5182•	3.00	3.98	•98	1.00	•00	1.04	•00	1.04
5190•	2.77	3.60	•14	1.10	•00	1.06	•00	1.06
			5.00					
4894•	4.77	4.98	1.62	1.55	•00	1.59	•00	1.59
4926•	4.77	4.93	1.61	1.57	•00	1.59	•00	1.59
4958•	4.76	5.00	1.61	1.55	•00	1.60	•00	1.60
4990•	4.79	4.98	1.61	1.56	•00	1.60	•00	1.60
5021•	4.81	4.97	1.62	1.56	•00	1.60	•00	1.60
5054•	4.85	4.92	1.58	1.56	•00	1.68	•00	1.68
5086•	4.83	4.96	1.58	1.58	•00	1.66	•00	1.66
5119•	4.82	4.74	1.57	1.53	•00	1.64	•00	1.64
5151•	4.79	4.27	1.60	1.58	•00	1.61	•00	1.61
5182•	4.80	4.59	1.58	1.57	•00	1.61	•00	1.61
5190•	4.99	5.04	1.68	1.57	•00	1.71	•00	1.71

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PACK NO. 201 ESB 8 A.H. 3RD ELECTRODE			DEPTH OF DISCHARGE R 2 2 2 2			TEST TEMPERATURE 25 °C ORBIT PERIOD 8 HRS		
CYCLE NO.	PACK VOLTAGE	PACK CURRENT	3RD ELECTR. VOLTAGES	3RD ELECTR. VOLTAGES	CELL VOLTAGES	CELL VOLTAGES	CELL VOLTAGES	CELL VOLTAGES
23.	5.26	1.99	•028	•149	•157	•119	•112	•06
46.	5.23	2.00	•002	•015	•014	•014	•007	•005
23.	5.90	•53	•018	•076	•083	•058	•063	•19
46.	5.87	•53	•001	•010	•007	•008	•004	•18
23.	7.65	•15	•041	•195	•199	•168	•152	•54
46.	7.56	•17	•000	•001	•001	•002	•001	•51

TRIP POINT AH IN AH OUT END OF CHARGE

PACK NO. 402
YARDLEY 3 A. H.

DEPTH OF DISCHARGE 16% TEST TEMPERATURE 25°C
PERCENT OF RECHARGE 260 ORBIT PERIOD 90 MIN.

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